DOCUMENT RESUME

ED 368 284	HE 027 301

TITLE	Annual Report on Higher Education in New Mexico, 1990. Accountability Data.
INSTITUTION	New Mexico Commission on Higher Education.
PUB DATE	Dec 90
NOTE	126p.; For the 1991-1993 reports, see HE 027 302-304.
PUB TYPE	Statistical Data (110) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	Accountability; Budgets; College Faculty; *College Outcomes Assessment; College Planning; College Students; Educational Assessment; *Educational Finance; *Educational Planning; Educational Policy; Educational Trends; Enrollment; *Higher Education; *Long Range Planning; Minority Groups; Planning Commissions; Public Colleges; State Colleges; Statewide Planning; Transfer Policy; Trend Analysis
IDENTIFIERS	*New Mexico; New Mexico Commission on Higher Education

ABSTRACT

This annual report provides an overview of major initiatives and accomplishments of the New Mexico Commission on Higher Education in implementing the policy directions identified in "Planning for the Class of 2005: A Vision for the Future." It begins with a specification of Commission responsibilities and outlines its legislative agenda for 1991. It discusses underrepresentation of minority students, transfer activity, funding formulas, budget data, and enrollments. Data on accountability of public postsecondary institutions are then presented, focusing on: (1) changes in participation rates; (2) student retention; (3) faculty involvement in student advisement; (4) percentage of developmental courses taught by full-time faculty; (5) percentage of lower division courses taught by full-time faculty; (6) student participation in sponsored research programs; (7) institutions where graduate students received their undergraduate degrees; (8) student outcome assessment; (9) placement data on graduates; and (10) student transfer from two-year and four-year institutions. Five-year plans submitted by the public postsecondary institutions are reviewed in terms of institutional histories and missions, external and institutional environments, programs, distance learning, cooperative education, enrollment management, faculty, capital resources, and resource planning. The report includes a map and list of institutions, a list of grantees of the Eisenhower Mathematics and Science Grants Program, and a description of proprietary school initiatives. (JDD)

****
*   Reproductions supplied by EDRS are the best that can be made   *
*   from the original document.   *
****

ED 368 284

ANNUAL REPORT
ON HIGHER EDUCATION
IN NEW MEXICO

1990

ACCOUNTABILITY DATA

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
New Mexico Commission
on Higher Education
D. Earp
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

New Mexico Commission on Higher Education
Santa Fe, New Mexico

HE027 301

BEST COPY AVAILABLE

State of New Mexico

Commission on Higher Education

1068 Cerrillos Road
Santa Fe, New Mexico 87501-4295

Area Code 505
827-8300

Telefax
827-8311

To: The Honorable Garrey Carruthers
Governor of the State of New Mexico

The Honorable Members of
the New Mexico Legislature

The 1990 Annual Report provides an overview of major initiatives and accomplishments of the Commission on Higher Education since the publication of the strategic plan for higher education in New Mexico two years ago. "Planning for the Class of 2005: A Vision for the Future" identifies needs and proposes policies to address each of these needs. This Annual Report describes progress made in implementing these policy directions, including review and comment on the first five-year plans submitted by all public postsecondary institutions in May 1990.

This Annual Report provides other useful information and facts about the Commission's responsibilities, the first Annual Report Card, funding, budgets, student financial aid, enrollments, and degrees awarded. It also indicates future directions.

The First Annual Conference on Statewide Higher Education Planning, co-sponsored by the Commission on Higher Education and the University of New Mexico, has been scheduled for December 17, 1990, at UNM. The conference will be an opportunity for teams of college and university administrators, faculty, and students to review with Commissioners statewide system performance and progress toward goals. This will include institutional accomplishments, new data analysis, and state needs and priorities as we as renew the vision. The conference will help to strengthen the integrated, formalized, data-based, and continuous planning process involving the Commission and the state's public higher education institutions.

Higher education in New Mexico is making progress, and it is a privilege to be a part of it.

Respectfully submitted,

Robert E. Taylor, Chairman
December 1990

COMMISSIONERS

ROBERT E. TAYLOR
Chair, Silver City
District 6 (1991)

MARJORIE BELL CHAMBERS
Vice Chair, Los Alamos
District 10 (1993)

BUCK R. WILSON
Secretary, Portales
District 9 (1995)

JOSE SAM SANCHEZ
Albuquerque
District 1 (1995)

DANIEL V. PIRAINO
Albuquerque
District 2 (1993)

ROBERT (BOB) STAMM
Albuquerque
District 3 (1995)

KAREN BULLER
Santa Fe
District 4 (1995)

RICHARD T. C. TULLY
Farmington
District 5 (1991)

CLARENCE FIELDER
Las Cruces
District 7 (1993)

JO ANN S. JARAMILLO
Roswell
District 8 (1991)

JOHN FINGER
Albuquerque
At-Large Member (1991)

CHRISTINE BUSTOS
Student Voting Member
Northern New Mexico
Community College (1991)

ALLISON ROMERO
Student Non-Voting Member
New Mexico Junior
College (1991)

STAFF

KATHLEEN M. KIES
Executive Director

SHARLENE R. BEGAY
Cooperative Education
Network Director

ROSALIE A. BINDEL
Associate Executive Director
for Academic Affairs

FRANKIE CHRISMAN
Financial Planning Director

DANNY K. EARP
Associate Executive Director
for Finance

JOSE GRIEGO
Senior Research and Policy
Analyst

LINDA HIGBEE
Capital Projects Director

JAMES N. McLAUGHLIN
Associate Executive Director
for Administration & Research

CURTIS PORTER
Senior Fiscal Analyst

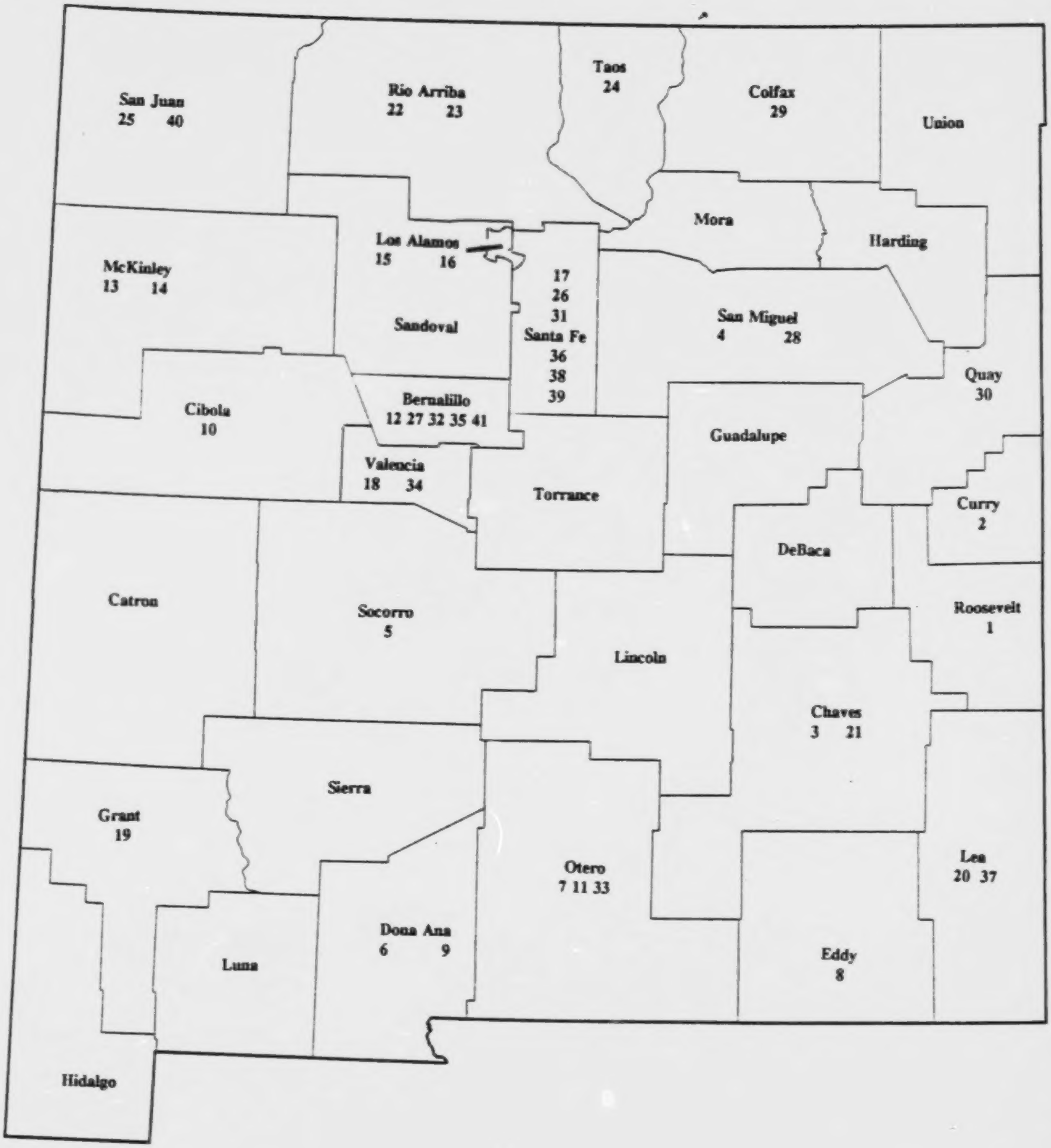
WILLIAM SIMPSON
Senior Research and Policy
Analyst

EILEEN E. VIGIL
Financial Specialist

ISABELL (Liz) JIMENEZ
Administrative Secretary

PATRICIA D. SISNEROS
Administrative Secretary

Map and List of Institutions


San Juan
25 40
Rio Arriba
22 23
Taos
24
Colfax
29
Union
McKinley
13 14
Los Alamos
15 16
Sandoval
17
26
31
Santa Fe
36
38
39
Mora
Harding
San Miguel
4 28
Quay
30
Cibola
10
Bernalillo
12 27 32 35 41
Valencia
18 34
Torrance
Guadalupe
Curry
2
DeBaca
Catron
Socorro
5
Lincoln
Roosevelt
1
Chaves
3 21
Sierra
Grant
19
Otero
7 11 33
Lea
20 37
Dona Ana
6 9
Luna
Eddy
8
Hidalgo

Four-Year Institutions and Their Branches and Graduate Centers

1. Eastern New Mexico University (ENMU)
    2. ENMU-Clovis Branch (Now Clovis Community College)
    3. ENMU-Roswell Branch
4. New Mexico Highlands University (NMHU)
5. New Mexico Institute of Mining and Technology (NMIMT)
6. New Mexico State University (NMSU)
    7. NMSU-Alamogordo Branch
    8. NMSU-Carlsbad Branch
    9. NMSU-Dona Ana Branch
    10. NMSU-Grants Branch
    11. NMSU-White Sands Missile Range Graduate Center
12. University of New Mexico (UNM)
    13. UNM-Gallup Branch
    14. UNM-Gallup Graduate Center
    15. UNM-Los Alamos Branch
    16. UNM-Los Alamos Graduate Center
    17. UNM-Santa Fe Graduate Center
    18. UNM-Valencia Branch
19. Western New Mexico University (WNMU)

Two-Year Institutions

20. New Mexico Junior College (NMJC)
21. New Mexico Military Institute (NMMI)
22. Northern New Mexico Community College (NNMCC) -El Rito
    23. NNMCC-Espanola
    24. NNMCC-Taos Educational Center
25. San Juan College (SJC)
26. Santa Fe Community College (SFCC)
27. Albuquerque Technical-Vocational Institute (T-VI)
28. Luna Vocational-Technical Institute (LVTI) -Las Vegas
    29. LVTI-Springer Center
30. Tucumcari Area Vocational School (TAVS)

Public Special Schools

31. New Mexico School for the Deaf
    32. NMSD-Albuquerque Center
33. New Mexico School for the Visually Handicapped
    34. NMSVH-Los Lunas Center

Private Colleges

35. College of Santa Fe - Albuquerque
36. College of Santa Fe - Santa Fe
37. College of the Southwest
38. St. John's College

Native American Institutions

39. Institute of American Indian Arts
40. Navajo Community College - Shiprock Branch
41. Southwestern Indian Polytechnic Institute

Table of Contents

Letter from the Chairman i
Commission Members iii
Staff iii
Map and List of Institutions iv
Table of Contents vi
List of Tables viii

A. COMMISSION RESPONSIBILITIES 1

B. MAJOR INITIATIVES AND ACCOMPLISHMENTS 5

C. 1991 LEGISLATIVE AGENDA 9

D. UNDERREPRESENTATION OF MINORITY STUDENTS 11

E. ACCOUNTABILITY: DATA AND ANALYSES 17

1. Changes in Participation Rates 17
2. Student Retention 22
3. Faculty Involvement in Student Advisement 24
4. Percentage of Developmental Courses Taught by Full-Time Faculty 26
5. Percentage of Lower Division Courses Taught by Full-Time Faculty 28
6. Student Participation in Sponsored Research Programs 30
7. Graduate Students: Where Did They Earn Their Undergraduate Degrees 31
8. Student Outcome Assessment 32
9. Placement Data on Graduates 35
10. Student Transfer from Two-Year to Four-Year Institutions 36

F. ARTICULATION 39

G. FINANCING POSTSECONDARY EDUCATION 43

1. Funding Formulas
   A. Two-Year Institutions 43
   B. Four-Year Institutions 45
2. Budget Information 47
3. Enrollments 63

H. REVIEW AND COMMENT ON INSTITUTIONAL PLANS 69

1. Institutional Histories, Missions, Roles, and Scopes 70
2. External and Institutional Environments 72
3. Programs Described in 1990 Institutional Plans 75
4. Distance Learning: An Overview 79
5. Cooperative Education 80
6. Enrollment Management Policies 86
7. Faculty--Four-Year Institutions 89
8. Faculty--Two-Year Institutions 93
9. Salary Increases 96
10. Capital Resources 97
11. Resource Planning 98

I. APPENDICES 101

1. Eisenhower Mathematics and Science Grants Program 102
2. Proprietary School Initiatives 104

Supplemental Data

This document gives the Commission's broad overview of institutional plans and programs. More detailed data taken from institutional submissions for the information included in Section H, numbers 1, 3 and 4, as well as accreditation data for the institutions, may be found in the "Annual Report on Higher Eduction, 1990, Supplemental Data" volume.

List of Tables

1. Minority Student Enrollments 11
2. Degrees Awarded by New Mexico Ethnic Population 13
3. Percentage Change in Participation Rates by Student Level, Ethnic Group, and Gender Between Fall 1988 and Fall 1989 18
4. Percentage Change in Participation Rates by Ethnic Group at each School Between Fall 1988 and Fall 1989 20
5. Percentage Change in Undergraduate Participation Rates by Ethnic Group and Gender Between Fall 1988 and Fall 1989 21
6. Percentage Change in Graduate Participation Rates by Ethnic Group and Gender Between Fall 1988 and Fall 1989 21
7. Student Retention and Transfer at Public Institutions 22
8. Average Statewide Institutional Effort in Student Advisement 24
9. Percentage of All Student Advisement Done by Faculty 25
10. Developmental Instruction by Full-time Faculty 27
11. Lower Division Instruction by Full Professors 29
12. Student Participation in Sponsored Research Programs, Research Institutions: Undergraduates 30
13. Student Participation in Sponsored Research Programs, Research Institutions: Graduates 30
14. Student Participation in Sponsored Research Programs, Regional Universities: Undergraduates 31
15. Student Participation in Sponsored Research Programs, Regional Universities: Graduates 31
16. Research Universities: Source of Undergraduate Degrees 32
17. Regional Universities: Source of Undergraduate Degrees 32
18. CHE Staff Categorization of the Status of Student Outcome Assessment, Summer 1990 34
19. Migration of Students from Two-Year to Four-Year Institutions 36

20. Disposition of Transfer Credits 40
21. Disposition of Denied Credits 41
21A. Disposition of Denied Credits - Graph 41
22. New Mexico Instructional Formula Factors --Dollars Per Student Credit Hour 1990-1991 49
23. CHE Analysis of I&G Expenditures (FY 1990-1991) Operating Budgets--Unrestricted 50
24. Summary of Budgeted Faculty Salary Increases, FYs 1989, 1990, 1991 51
25. Capital Outlay Recommendations vs. Legislative Appropriations: FY 1989-1990 52
26. Capital Outlay Recommendations vs. Legislative Appropriations: FY 1990-1991 53
27. Capital Outlay Funding Sources for Higher Education 1985-1990 55
28. Capital Outlay Funding Sources: State Appropriations Compared to Bond Issues, 1985-1990 56
29. State Capital Outlay Appropriations for Higher Education--By Type, 1985-1990 57
30. State Capital Outlay Appropriations for Higher Education--By Amount, 1985-1990 57
31. State Capital Outlay Appropriations for Higher Education--By Percent, 1985-1990 59
32. State Funded Financial Assistance 60
33. Total Financial Aid by Source, 1988-1989 62
34. Fall Term Full-Time Student Equivalent (FTE) Enrollments 1983-1989 64
35. 1983-1989 Fall Term FTE Enrollment Totals 65
36. Fall Term Enrollments, Percentage Change from 1988-1989 66
37. Baccalaureate & Associate Degrees Awarded by New Mexico Ethnic Population, 1985, 1988, 1990 66
38. Associate Degrees Awarded by New Mexico Ethnic Population 1985, 1988, 1990 68
39. Percent of Total Graduate Student Credit Hours 75
40. Cooperative Education--Types of Programs Offered 82
41. Cooperative Education--Numbers of Students Involved 84
42. Gender and Ethnicity of Faculty, Four-Year Institutions 90
43. Two-Year Postsecondary Faculty Profile, Part-time/Full-time, Ethnicity, and Gender by Institution 94

A. COMMISSION RESPONSIBILITIES

The New Mexico Commission on Higher Education (CHE) is a statutory 13-member board appointed by the Governor. Ten members are appointed from State Board of Education districts, one is a member-at-large, and two are student representatives although only one of the latter is a voting member. The term of office for members is six years except for student representatives who hold one-year terms. Student membership rotates among the state's postsecondary institutions.

The New Mexico Legislature created the Board of Educational Finance in 1951 to recommend adequate and equitable funding levels for the state's higher education institutions. Since that time, the Board's responsibilities have increased to include not only analysis of fiscal needs, but also statewide planning and coordination of postsecondary education. In recognition of these increased responsibilities, the 1986 Legislature changed the name of the board to the Commission on Higher Education.

Today, CHE's major duties include:

Financing of Public Higher Education

CHE deals with problems of financing of all state-supported postsecondary education institutions. It:

- Recommends adequate financing and equitable distribution of available funds through its funding recommendations for all institutions and programs under its purview;
- Receives, adjusts, and approves operating budgets for resubmittal to the state budget division of the Department of Finance and Administration;
- Develops and revises funding formulae to ensure each postsecondary institution can accomplish its planned mission;
- Compiles a manual prescribing a uniform classification of accounts and a uniform system for budgeting and reporting that includes the reporting of all available funds; and
- Conducts special audits of the institutions including enrollments, fund balances, compliance with legislation, and comparisons of expenditures to budgets.

Capital Outlay

The Commission reviews and approves:

- Major construction, building rehabilitation, and other capital outlay projects;
- Capital outlay requests for legislative funding, including development of a priority list of recommended projects for the Executive and the Legislature; and
- Sales and refunding of district general obligation bonds and institutional revenue bonds.

Policy, Planning, and Programs

The Commission:

- Carries out a continuing program of statewide planning for postsecondary education;
- Approves new graduate programs at the four-year institutions and associate degrees at vocational and technical institutions of post-secondary education;
- Develops and implements a statewide articulation plan and reports annually on its status and progress;
- Administers state-mandated and federal programs, including the Postsecondary Educational Institution Act and the Out-of-State Proprietary Schools Act, the Dwight D. Eisenhower Mathematics and Science Education program (Appendix 1), and the Eminent Scholars recognition and New Mexico cooperative education programs; and
- Maintains a statewide database on higher education.

Governance

The Commission develops and maintains programs for the orientation and in-service education of members of the boards of regents of designated institutions.

It surveys proposed community college districts to determine need and prospects for adequate support; and, as appropriate, approves petitions for formation of such colleges, calls an election for establishment of a proposed community college district, and provides appropriate notification of the election results.

It approves operation of private or out-of-state postsecondary educational institutions, and courses offered by nonproprietary out-of-state schools, to operate in New Mexico.

Financial Aid

The Commission administers the:

- — Student Incentives Grants program (21-2-8);
- — Student Choice fund (21-21C-4,5,8);
- — Senior Citizens Reduced Tuition Act (21-21D-4);
- — Vietnam Veterans' Scholarship fund (21-21E-1B);
- — Fire Fighter and Peace Officer Survivors Scholarship Act (21-21F-5);
- — Graduate Fellowship Act (21-21G-4, 11);
- — New Mexico Scholars Act (21-21H-4);
- — Medical Student Loan program (21-22-4, 10);
- — Osteopathic Medical Student Loan program (21-22A-4, 10);
- — Nursing Student Loan program (21-22B-4, 10);
- — Minority Doctoral Assistance Loan program (21-21I-1, 8);
- — Day Care Grants program;
- — Osteopathic Intern Act (21-26-4);
- — Medical Education Loan Repayment program (21-2-8); and the
- — State Work Study program (21-21B-1, 9)

It promulgates rules regarding amounts and conditions of loans to eligible students, approves student loan applications, approves shortage areas, provides annual reports to the governor and Legislature regarding loan claims and default rates of participating institutions, and contracts for assistance in collecting defaulted student loans.

It creates and maintains a Work-Study Program, promulgates necessary rules and regulations, equitably allocates Work-Study funds to eligible institutions, establishes monetary need criteria for expenditures of at least one-third of Work-Study funds, and establishes eligibility criteria regarding residency and enrollment status for Work-Study programs.

It contracts for a program to provide postdoctoral training for osteopathic interns (21-26-4).

B. MAJOR INITIATIVES AND ACCOMPLISHMENTS

In 1988, the Commission solicited a broad spectrum of opinion and discussion for the development and subsequent wide distribution of a strategic plan for higher education in New Mexico. "Planning for the Class of 2005: A Vision for the Future" identified the following needs:

- A more coherent policy for the fragmented and underutilized group of two-year institutions;
- Expansion of high quality postsecondary services to a growing and ethnically diverse population;
- Greater cost effectiveness;
- Strengthened ties with the state's public schools;
- Improved advisement and education/career counseling;
- Revision of funding formulae to encourage change; and
- Greater coordination between and among educators at all levels, governmental agencies, business, industry, research laboratories, and the public.

The strategic plan proposes policies to address each of these needs.

Further, the Commission has held the first annual seminar for regents. This program is designed to work toward a common vision of postsecondary education in New Mexico, improve communication, and improve system performance.

Policies that Encourage Restructuring

As called for in its strategic plan, the Commission developed institutional planning guidelines. The first five-year plans were submitted by all postsecondary institutions in May 1990 and are currently being analyzed by CHE to identify evidence of systemic change. The analysis and the legislatively required report card will be the major topics for a state postsecondary planning meeting scheduled for December 17, 1990.

The 1990 legislative appropriation incorporated the first phase of revised funding formulae. Revisions were designed to offer incentives for systemic change such as:

- Transfer of responsibility for remediation from four-year to two-year institutions;

- Greater mission differentiation among comparable institutions and less lower division work at research universities; and

- Enhanced quality in library collections and in student services in two-year institutions.

Working Toward Redesign of a Higher Education System

The Commission has:

- Established articulation for postsecondary programs, both with each other and with secondary school programs;

- Supported funding for a Center for Teaching Excellence at ENMU;

- Gathered data for the state's first Report Card on post-secondary education;

- Reviewed policies on distance learning and instructional uses of television;

- Supported the initiative to permit concurrent enrollment of high school students in postsecondary institutions, and worked with the State Board of Education to develop guidelines to implement this policy; and

- Supported legislation to provide a more stable Commission membership, thus assuring continuity in pursuit of the policy objectives outlined in "Planning for the Class of 2005: A Vision for the Future."

Although not directly involved in their efforts, CHE recognizes and supports interaction among elementary, secondary, and post-secondary institutions and the mathematics and science resources of Los Alamos and Sandia National Laboratories, the White Sands Missile Range, and various Air Force bases in the state. The Commission also encourages the organization and work of consortia, particularly the New Mexico Consortium of Academic Libraries.

Financing Alternatives for Funding System Change

The Commission proposed a funding mechanism for encouraging systemic change. A "system development fund" would provide money that could be directed by the Commission to encourage specific actions or to reward specified performances in aid of systemic change as described in the strategic plan. This priority has not yet been funded by the Legislature.

Reviewing the progress

CHE reviews its progress and sets specific goals annually; these are published in its management plan. The Commission intends a formal review of progress toward the system goals of its strategic plan after five years (in 1993) and will at that time determine needed changes.

C. 1991
LEGISLATIVE AGENDA

The Commission's legislative agenda for 1991 includes:

Finance and Budget Requests

A. Budget as reflected in House Bill 2:

   1. Funding for workload increases and adjustments;

   2. Additional funding for, and modifications of, current institutional funding support for second phase of formula revisions of 1990, including peer adjustment and academic support;

   3. Funding for financial aid program growth, including support for aid to student parents for day care costs under terms of the State Student Incentive Grants program;

   4. Funding for compensation increases;

   5. Funding for additional formula revisions, including alterations for minimum "I," growth criteria, and equipment renewal and replacement based on submission of inventories;

   6. Other inflation adjustments;

   7. Expansion of existing public service and research projects; and

   8. New initiatives (programs of technical excellence).

B. CHE budget request, focused on staffing--fiscal analyst, distance learning, proprietary school regulation, special projects--and increased space.

C. Funding for instructional television policy development and management.

D. Capital outlay requests.

Requested Statutory Changes

A. Regulation of proprietary schools.

B. Amendments to student financial assistance statutes:

    1. Inclusion of language regarding use of professional judgment by campus aid officers;

    2. General technical amendments to existing statutes on financial aid;

    3. General legislation governing all loan-for-service (forgivable) programs; and

    4. Focus on minority persistence/achievement.

C. Co-sponsorship of a bill to be introduced by SDE for development of an integrated elementary, secondary, and postsecondary data base to enable tracking of students.

D. Support for legislation regarding relationship of foundations to institutions, and investment policies of foundations.

E. Support for formula funding of adult basic education through the State Board of Education.

D. UNDERREPRESENTATION OF MINORITY STUDENTS

Through House Memorial 23, 1990, the Legislature asked CHE to conduct a study of the underrepresentation of minority students in postsecondary education and to report its findings with recommendations on how to improve the recruitment, enrollment, and retention of minority students in postsecondary institutions.

Current Underrepresentation: The Statewide Picture

Research completed for CHE's "Strategic Plan for Higher Education in New Mexico," issued in 1988, had already documented underrepresentation of Hispanic and Native American students among undergraduates at the state's postsecondary institutions, with their enrollments running about 25% below their percentage representation in the general population. Thus, HM 23 was viewed as an opportunity to update these numbers, look for any changes in representation in recent years, and to identify recent actions undertaken to increase representation.

The most recent comparisons of postsecondary representation and population representation, by ethnic group, are shown in Table 1. The table indicates that enrollments and degree completions by Hispanic and Native American students are substantially below the representation of these groups in the general population. Black students are underrepresented in graduate programs, although because their numbers are small it is more difficult to analyze their under-representation. Statistical analyses performed on data from 1987-88, 1988-89, and 1989-90 showed no statistically significant change in representation of the various ethnic groups during these three years, statewide.

Table 1. Minority Student Enrollments

Minority Group	Representation in Population	Proportion of 1989 Undergraduates	Proportion of 1989 Grad. Enrollment	Proportion of 1990 Associate Degrees	Proportion of 1990 Bachelors Degrees
Hispanic	39%	28%	15%	22%	22%
Native American	9%	6%	2%	8%	2%
Black	2%	2%	1%	2%	2%

Sources: Population projections by the UNM Bureau of Business and Economic Research. Enrollment and degree data from the CHE student file and degree file.

Progress Toward Increasing Representation: The Picture at Individual Institutions

Table 1 shows that, based upon statewide data, underrepresentation remains a problem--and that it is progressively more severe at each successive level of education. On the other hand, additional analyses provided by individual institutions do show progress toward increasing the involvement of underrepresented groups. For example, NMSU reports increasing its enrollment of Hispanic students by 30% from 1986 to 1990 and other minority students by 23% during the same period.

As another example, a UNM analysis of freshmen enrollments reveals increased proportions of the freshman class for Hispanic, Native American, and Black students from 1988 to 1990, with increasing proportions of these students entering under the University's most rigorous admission option which suggests that they will have improved chances of surviving to graduation. UNM has a goal of increasing enrollments from underrepresented groups by at least 2% of the total student body each year through the year 2000.

Thus, increases are beginning to be seen through analyses sensitive to the programs of individual institutions. However, the magnitude of these changes is not yet sufficient to be reflected in overall, statewide statistics.

Baccalaureate & Associate Degree Recipients: By Ethnicity for 1985, 1988, and 1990

The multi-year (1985, 1988 and 1990) analysis of degrees awarded for each ethnic group in New Mexico, taken from CHE's student data file, shows minorities are not represented in post-secondary graduation data in the same proportion as they are in the general population of the state. Although minorities make up 51.4% of the population, only 30% of New Mexico baccalaureates and 34% of associate degree graduates are minority students. Moreover, the percentage of ethnic recipients of degrees during this period has been fairly constant, except for Native American recipients of associate degrees, whose percentages have varied from 6% in 1985, to 11% in 1988, and back to 8% in 1990. Table 2, page 13, shows the percentages, by degrees and by ethnicity, for 1990.

The demographic projection of a minority majority state predicted in the CHE strategic plan has become a reality sooner than expected. It is incumbent on all state post-secondary institutions to improve participation and retention rates of all groups, but this is especially true of underrepresented groups. This is necessary in all programs and at all levels of higher education, but is particularly needed in such fields as mathematics, physical sciences, and engineering. The imbalance

Table 2. Degrees Awarded by New Mexico Ethnic Population

New Mexico Population, 1990 *	Bachelor Degrees Awarded, 1990	Associate Degrees Awarded, 1990
Anglo: 49.6%	69%	64%
Hispanic: 38.8%	22%	22%
Native American: 9.0%	2%	8%
Other: 2.7%	6%	6%

* UNM Bureau of Business & Economic Research Projections (Based on 1990 Census data)

of underrepresented groups in our institutions "must be addressed if the career options and ultimate contributions to the state of these groups are to increase." Development of a statewide plan to increase participation and retention of underrepresented groups is recommended.

Additional detail about minority degree recipients is shown in Tables 37 and 38, pages 67-68, of this report.

Legislative Recommendations

Whatever encouragement is provided from the state level, action at the institutional level is essential to increase minority enrollments and success in education. In institutional plans submitted to the CHE in Spring 1990, postsecondary institutions identified improved minority enrollment and program completion as goals. Most plans identify specific programs initiated to produce these improvements.

> **POLICY IMPLICATIONS**: Because the early institutional analyses suggest that their programs are having positive effects, CHE believes it is important to augment current incentives and pressures for increasing minority enrollment (both student and faculty), some recently enacted through legislative appropriations, and some through administrative policies and technical assistance. In some cases, additional revenue will speed these improvements.

CHE believes the following specific recommendations will have the greatest likelihood of improving minority representation.

Legislative Recommendations

- **Support CHE's top three priorities for institutional funding.** This funding is crucial to help institutions expand the recruitment and student assistance programs that are proving effective in increasing minority student enrollment and success. The three priorities are:

- ☐ Base funding for increasing enrollments
- ☐ Funding for formula modifications that will increase academic support services
- ☐ Funding for additional financial aid, including a portion that will assist students to obtain child care, thereby helping students who have been out of education for several years.

- **Support continued funding of the educational options information campaign.** This campaign was initiated by the Legislature in 1990 and needs continued support to assure a positive impact. $100,000 in funding for the campaign is requested within the CHE's agency budget for 1991-92.

- **Support a CHE package of amendments to current student aid statutes** that will, in part, improve the focus of financial aid upon minority persistence and achievement.

- **Support a collaborative request from the State Board of Education and CHE to fund an integrated system for tracking students** through their entire educational careers. Better data, tied to specific students, will help the state to refine its efforts to reduce underrepresentation in education.

Administrative Recommendations

- **Increase minority representation among institutional faculties and administrations.** Increased faculty representation is an important element in making the ambiance at postsecondary institutions amenable to increasing retention of minority students. Institutions employing minority persons in positions of senior leadership send a clear message about the importance they attach to cultural diversity among their professional staff.

- **Encourage collaboration with public schools.** Eliminating barriers to equal educational opportunity requires teamwork. Colleges and universities need to work in collaborative ways with school districts to raise the aspirations and expectations of minority students and to strengthen academic preparations.

- **Encourage the development of a statewide plan.** A state plan is needed in order to frame the issue of minority education progress as a state policy concern, and not just as the responsibility of particular institutions. The state focus creates a context in which each campus is part of a larger, collective effort. The plan should provide historical data on minority student high school graduation rates, college-going rates, enrollments, and degrees granted. It must also set specific targets for these categories. Without this specificity, minority participation is not clearly defined or understood as a major policy issue.

Related CHE Programs

All of these recommendations are components of CHE's 1991 legislative package. Increasing minority representation and success is a fundamental objective of the Commission, articulated through its "Strategic Plan for Higher Education in New Mexico," which states the imbalance of representation among students, faculty, and staff "must be addressed if the career options and ultimate contributions to the state of these groups are to increase."

CHE itself is maintaining a systematic effort to press and assist postsecondary institutions to improve minority recruitment and success, exemplified by the following programs.

- CHE is implementing an educational opportunity information campaign, initiated and funded by the 1990 Legislature, particularly to encourage students from underrepresented groups to consider postsecondary education and to assist them in applying to institutions.

- Institutions are now reporting specific successes and failures in articulation, that is movement of students from one campus to another with minimal loss of credit. This reporting program, initiated by the 1989 Legislature, should particularly assist those students who have in the past been least successful in completing an undergraduate program, that is students from underrepresented groups.

- CHE is maintaining a related program of technical assistance regarding articulation. The program has been underwritten for several years by U.S. West, in cooperation with the State Department of Education. This year, five regional conferences are bringing together English and mathematics teachers from area high schools and postsecondary institutions to find ways to improve students' preparation for postsecondary work, both in academic and vocational-technical programs.

- Last year, CHE initiated a program wherein institutions develop five-year operating plans addressing, among other matters, the composition of their student bodies and ways to remedy underrepresentation. A statewide conference in December 1990 will convene institutional representatives to discuss techniques that are helpful in this regard.

- CHE operates a cooperative education network, funded through direct legislative appropriation and institutional and employer funds, to help students obtain work experiences coordinated with their educational objectives. A major intent of cooperative education is to improve students' academic success; students from underrepresented groups are therefore particularly likely to benefit from cooperative education.

- CHE encourages minority participation as a criteria for funding Dwight D. Eisenhower Mathematics and Science teacher training programs. The number of minority students indirectly affected by high minority teacher participation increases dramatically through this effort.

- CHE is currently seeking private sector support for publishing copies of the New Mexico Postsecondary Inventory of Instructional Programs which will be distributed to all high school counselors' offices. It is hoped that this effort will help counselors in explaining the options and opportunities available to students.

Other programs also are working to increase the postsecondary enrollment and success of underrepresented groups. Some examples, explicitly funded by the Legislature, are Advanced Placement, New Mexico MESA (Mathematics, Engineering, and Science Achievement), and the New Mexico Scholars Program. Within individual institutions, particularly UNM and NMSU, specific offices are assigned responsibility for providing minority students with advisement, tutoring, and other assistance to help them remain and succeed in their postsecondary programs. Institutions also are attempting to increase representation of minority groups among faculty, administration, and staff, as another source of encouragement and assistance toward the success of minority students.

In summary, CHE recommends additional funding and statutory improvements that will help the state's public postsecondary institutions expand their existing efforts to improve minority student enrollment and success. Institutions are reporting early successes and the most effective role for the state at this time is to help the institutions focus and expand their successes.

E. ACCOUNTABILITY: DATA AND ANALYSES

The 1990 Legislature passed legislation developed by the Governor requiring an annual report regarding the performance of public postsecondary institutions. CHE was charged with preparing the report, using data provided by the institutions and allowing for institutional review prior to publication.

Because little time was available to prepare the first-year report, institutional representatives worked with the Commission to identify provisional measures that could be used in 1990. For future years, it is the intent of both the Commission and the institutions to improve the quality of these measures and the precision with which they address issues of accountability to New Mexicans.

1. Changes in Participation Rates

Improving participation and retention rates of all groups is a state priority, but especially so for underrepresented groups. This is true in all programs and levels of higher education, but especially in the under-used two-year sector. Data showing the percentage change in the participation rate of students by ethnic group and gender from Fall 1988 to Fall 1989 is shown in Table 3, page 18, and Tables 4 through 6, pages 20 and 21. The change in participation rates is the difference between the Fall 1988 and Fall 1989 percentages of total headcounts.

There are positive changes reflected in these data, though not yet of such magnitude as to be reflected in significant increases in the proportion of underrepresented groups enrolled from one year to another. Preliminary Fall 1990 enrollment data suggest continued improvement in representation of such persons.

Table 3 shows the state totals by level, ethnic group, and gender. Table 4 shows each institution's totals by ethnic group, while Table 5 shows undergraduate participation at research institutions and Table 6 shows graduate participation.

The data shown in Table 3 are for all schools except LVTI, TAVS, and NMMI. LVTI data are included in Table 4, but comparable data was not available for TAVS and NMMI.

The following definitions are used for information presented in Table 3:

Undergraduate--Degree-seeking students at the subbaccalaureate level.

Non-degree undergraduate--Students neither holding nor seeking a baccalaureate degree.

Graduate--Degree-seeking students holding the baccalaureate; (includes first professionals at the UNM law and medical schools).

Non-degree graduate--Non-degree-seeking students holding a baccalaureate degree.

Table 3. Percentage Change in Participation Rates by Student Level, Ethnic Group, and Gender Between Fall 1988 and Fall 1989

ETHNIC GROUP	GENDER	UNDERGRADUATE % Change in Rates (Headcount Difference)	GRADUATE % Change in Rates (Headcount Difference)	NON-DEGREE UNDERGRADUATE % Change in Rates (Headcount Difference)	NON-DEGREE GRADUATE % Change in Rates (Headcount Difference)
White	Female	0.09% (903)	0.08% (182)	-1.85% (-1,216)	1.39% (1,162)
	Male	-0.65% (193)	0.04% (139)	-1.00% (-619)	0.96% (803)
Black	Female	-0.07% (-24)	0.00% (3)	-0.02% (-6)	0.02% (15)
	Male	-0.04% (-2)	0.01% (9)	-0.01% (-2)	0.01% (8)
Hispanic	Female	0.54% (804)	0.03% (53)	-0.44% (-237)	0.26% (220)
	Male	0.38% (603)	0.02% (42)	-0.25% (-122)	0.19% (156)
American Indian	Female	0.20% (232)	0.00% (-1)	-0.19% (-106)	0.06% (49)
	Male	-0.01% (43)	0.01% (15)	-0.08% (-45)	0.04% (29)
Asian	Female	-0.01% (7)	-0.04% (-33)	-0.04% (-28)	0.03% (24)
	Male	-0.05% (-30)	-0.07% (-53)	-0.05% (-36)	0.00% (2)

Source: CHE Student File, The Annual Report Card, Table C, September 19, 1990.

Table 3 indicates that participation rates for White, Hispanic and American Indian females and for Hispanic males have increased at both the undergraduate and graduate levels. Participation rates for Asians of either gender have decreased slightly at both levels statewide.

At the undergraduate level, participation rates for American Indian females have also increased, while rates for Black females and White males have decreased. Generally, there are increases in participation rates at the graduate level for all ethnic groups except Asians and American Indian females.

Decreases in participation rates for all ethnic groups regardless of gender are shown for undergraduate non-degree seeking students. Notable gains at the graduate non-degree level include White, Hispanic, and American Indian females and males.

Institutional Summaries by Ethnic Group. Table 4 shows Black participation rates generally decreased or remained stable at most institutions. Exceptions are UNM, UNM-Medical School, NMSU-Dona Ana, and NMIMT, which show increases.

Participation rates for Hispanics increased at 14 of 25 institutions. Decreases for Hispanics are shown for UNM, UNM-Medical School, UNM-Gallup, UNM-Valencia, UNM-Los Alamos Graduate Center, NMSU-Alamogordo, NMSU-Grants, ENMU Off-Campus Graduate Center, and SFCC.

Table 4 also shows increased American Indian participation rates and headcount at 12 institutions: UNM, UNM-Medical School, UNM-Gallup, UNM-Valencia, UNM-Santa Fe Graduate Center, NMSU and all four of its branches, WNMU, and SFCC.

Asian participation rates and headcount decreased during this period at 10 institutions: UNM, UNM-Gallup, UNM-Los Alamos, UNM-Santa Fe Graduate Center, NMSU-Alamogordo, NMSU-Carlsbad, NMSU-Grants, ENMU, NMIMT, and Albuquerque T-VI. Increases are indicated at another 10 institutions: UNM-Medical School, UNM-Los Alamos Graduate Center, NMSU, NMSU-Dona Ana, NMHU, WNMU, ENMU-Clovis, ENMU-Roswell, SJC, and SFCC.

Undergraduate Participation at Research Institutions. Table 5 shows increases in undergraduate participation rates and headcount for American Indian females at UNM, NMSU, and NMIMT.

At UNM, undergraduate rate and headcount increases are also shown for White and Asian females, and for Black and American Indian males. Decreases are also noted for Black and Hispanic females.

The data indicate additional increases at NMSU for Hispanics of both genders and for Asian females.

NMIMT also has increased undergraduate participation for White and Hispanic females, and for Black females and males.

Graduate Participation at Research Institutions. Increases in graduate participation rates and headcount at all three research institutions are shown for White females and Hispanic males. Table 6 also indicates graduate increases at UNM for Hispanic females and for American Indian males. UNM decreases are noted for Asian females and males.

NMSU graduate participation rates and headcount also show gains for Hispanic and American Indian females and for Black males. NMSU graduate losses are indicated for Black females and for White and American Indian males. NMIMT graduate losses are shown for White males.

Table 4. Percentage Change in Participation Rates by Ethnic Group at Each College Between Fall 1988 and Fall 1989

INSTITUTION	WHITE % Change in Rates (Headcount Difference)	BLACK % Change in Rates (Headcount Difference)	HISPANIC % Change in Rates (Headcount Difference)	AMERICAN INDIAN % Change in Rates (Headcount Difference)	ASIAN % Change in Rates (Headcount Difference)
UNM	-1.20% (19)	0.07% (24)	-0.75% (-87)	0.04% (25)	-0.63% (-14)
UNM-Medical School	1.86% (1)	0.37% (1)	-3.67% (-12)	0.74% (2)	0.35% (1)
UNM-Gallup	-1.57% (-27)	-0.37% (-6)	-0.46% (-8)	1.83% (23)	-0.19% (-3)
UNM-Los Alamos	-3.95% (34)	0.15% (2)	3.52% (53)	-0.16% (0)	-0.81% (-6)
UNM-Valencia	0.17% (30)	-0.30% (-3)	-0.93% (19)	0.08% (2)	0.00% (0)
UNM-Los Alamos Grad	2.94% (61)	0.25% (1)	-3.69% (3)	-0.72% (-1)	0.25% (1)
UNM-Santa Fe Grad	-1.87% (-7)	-0.69% (-1)	2.29% (1)	0.94% (1)	-2.21% (-3)
UNM-Gallup Grad	0.00% (9)	—	7.14% (2)	-10.71% (0)	—
NMSU	-1.34% (-181)	-0.11% (-16)	1.42% (207)	0.21% (31)	0.04% (5)
NMSU-Alamogordo	1.59% (131)	-0.73% (-7)	-0.74% (7)	0.22% (8)	-0.44% (-6)
NMSU-Carlsbad	-3.58% (10)	-0.13% (-1)	3.53% (48)	0.52% (6)	-0.34% (-3)
NMSU-Grants	-3.85% (-4)	0.18% (1)	-4.11% (-13)	7.99% (46)	-0.22% (-1)
NMSU-Dona Ana	1.21% (404)	0.61% (28)	-0.04% (316)	0.18% (24)	0.21% (7)
NMHU	0.33% (51)	-0.35% (-3)	0.81% (165)	-0.25% (2)	0.23% (6)
WNMU	-1.54% (31)	-0.07% (1)	1.14% (60)	0.28% (7)	0.03% (1)
ENMU	-0.26% (-84)	0.19% (2)	0.03% (-14)	0.03% (0)	-0.17% (-7)
ENMU-Clovis	-0.34% (-25)	-0.82% (-24)	1.60% (42)	-0.35% (-10)	0.23% (6)
ENMU-Roswell	-0.68% (167)	-0.43% (-4)	1.07% (81)	-0.46% (-6)	0.53% (10)
ENMU-Off Campus Grad	2.51% (-15)	-0.74% (-1)	-1.77% (-4)	—	—
NMIMT	-3.13% (-108)	0.73% (8)	1.65% (9)	-0.72% (-11)	-0.41% (-6)
SJC	0.65% (146)	0.02% (1)	0.48% (36)	-1.12% (22)	0.11% (4)
SFCC	2.50% (354)	-0.07% (1)	-3.92% (171)	1.06% (41)	0.17% (8)
NMJC	-1.41% (-168)	-1.48% (-42)	2.94% (48)	-0.17% (-5)	0.02% (0)
NMMCC	1.72% (35)	0.19% (3)	-0.90% (28)	-0.99% (-9)	-0.02% (0)
Albuquerque T-VI	2.41% (683)	0.04% (32)	0.53% (358)	-0.62% (18)	-0.36% (-20)
LVTI	-1.70% (-4)	0.57% (7)	-0.04% (95)	-0.18% (-1)	-0.13% (-1)

Source: CHE Student File, The Annual Report Card, Table C, September 19, 1990.

Table 5. Percentage Change in Undergraduate Participation Rates by Ethnic Group and Gender Between Fall 1988 and Fall 1989

ETHNIC GROUP	GENDER	UNM % Change in Rates (Headcount Difference)	NMSU % Change in Rates (Headcount Difference)	NMIMT % Change in Rates (Headcount Difference)
White	Female	0.08% (124)	-0.05% (-3)	1.22% (2)
	Male	-0.75% (-86)	-0.97% (-134)	0.51% (-28)
Black	Female	-0.08% (-15)	-0.03% (-4)	0.11% (1)
	Male	0.05% (16)	0.00% (0)	0.36% (4)
Hispanic	Female	-0.27% (-28)	0.36% (53)	1.32% (12)
	Male	-0.03% (26)	0.32% (48)	0.35% (0)
American Indian	Female	0.04% (17)	0.24% (34)	0.33% (3)
	Male	0.01% (8)	-0.04 % (-6)	-0.01% (-1)
Asian	Female	0.04% (14)	0.02% (4)	-0.06% (-1)
	Male	-0.13% (-28)	-0.03% (-4)	-0.30% (-4)

Source: CHE Student File, The Annual Report Card, Table C, September 19, 1990.

Table 6. Percentage Change in Graduate Participation Rates by Ethnic Group and Gender Between Fall 1988 and Fall 1989

ETHNIC GROUP	GENDER	UNM % Change in Rates (Headcount Difference)	NMSU % Change in Rates (Headcount Difference)	NMIMT % Change in Rates (Headcount Difference)
White	Female	0.67% (191)	0.13% (20)	0.82% (6)
	Male	0.61% (169)	-0.24% (-33)	-0.38% (-13)
Black	Female	0.00% (2)	-0.04% (-6)	—
	Male	0.03% (6)	0.01% (2)	—
Hispanic	Female	0.04% (14)	0.23% (34)	0.01% (0)
	Male	0.10% (29)	0.10% (14)	0.27% (3)
American Indian	Female	0.00% (0)	0.01% (2)	—
	Male	0.06 % (14)	-0.03% (-3)	0.09% (1)
Asian	Female	-0.15% (-35)	0.00% (0)	0.10% (1)
	Male	-0.25% (-58)	0.03% (4)	0.11% (1)

Source: CHE database, The Annual Report Card, Table C, September 19, 1990.

BEST COPY AVAILABLE

2. Student Retention

Of the 11,227 students who began **degree** programs as freshmen in Fall 1988 (about 47% of all 1988 freshmen at New Mexico's public colleges and universities), 59% were still enrolled in Fall 1989 (considered the "persistence rate"). Most of these continuing students, 86%, remained at the same institution (labeled "retention" in this summary), while 14% transferred to another New Mexico public institution.

Student persistence varied by type of institution. At the six four-year universities the persistence rate averaged 74% (ranging from 82% at NMIMT to 59% at WNMU NMHU). At the 14 two-year institutions which then had degree programs, the persistence rate averaged 44% (ranging from 38% to 76%).

Retention rates, transfer, and (summing the two) persistence are shown for four types of institutions in Table 7.

Table 7. Student Retention and Transfer at Public Institutions

Type of Institution	Freshmen Beginning Degree Programs	Percent Returned Fall '88	Percent Transferred to Other Insts. Fall '89	Total Percent Persistence
4-Year Universities	5,431	66%	8%	74%
Branch Colleges	1,826	35%	14%	49%
Indep't Comm. Colleges	2,201	40%	4%	44%
Albuquerque T-VI	1,769	36%	5%	41%
Total Statewide	11,227	51%	8%	59%

Source: CHE Student File, report dated September 5, 1990

Caveats. The major shortcoming of this analysis lies in use of a fall-to-fall comparison as the sole measure of student persistence. This measure reflects only the early part of the picture of a student's progress toward a degree, particularly a bachelors degree, and therefore probably overstates overall persistence. On the other hand, this measure ignores an increasing number of students who "stop out" periodically during their educational careers, but do eventually persist further than suggested here, thus understating the persistence of these students. In addition, some students not returning to their institution nor transferring to another public institution may continue their education out of state or at a private school within the state. These numbers are not known, but they also would increase the persistence rates described here. The analysis is limited to degree-seeking students.

Equally important, it is inappropriate to expect the same persistence rates at two-year and four-year institutions. Many students begin their education at a two-year campus with different purposes and different obligations than those at a four-year campus. Currently, there are no cross-campus measures of student intention, but it is known that the average age of students at two-year institutions is greater than that at four-year institutions. In addition, the academic qualifications of freshmen at some four-year campuses tend to be higher than at two-year institutions, and bachelors degree programs are known to be more demanding of persistence than are the shorter associate degree programs more typical of two-year campuses. Such selection factors may make some discrepancy in persistence rates inevitable.

The rates of transfer between institutions shown here understate overall transfer, because they reflect only the transfer that occurs after the freshman year.

Finally, the persistence rates shown here are based only on 1988 data and in some cases represent small numbers of students (fewer than 100 at four of the branch campuses). It will be important to track enrollments for additional years in order to define the rates characteristic of particular institutions.

POLICY IMPLICATION. CHE recognizes that, in contrast to nationwide enrollment patterns, relatively few New Mexico students begin their postsecondary degree programs at two-year institutions. Because of this, it has developed a policy to encourage a shift toward greater freshmen enrollment at two-year institutions. The preceding 1988 persistence data suggest that, although nearly 52% of freshmen in degree programs now begin their work at New Mexico's two-year institutions, they may be less likely to continue than are those students who begin their programs at four-year institutions. This interpretation is constrained by the substantial caveats noted above. However, the Commission may wish to study enrollment and persistence patterns more critically if it is to continue to encourage a shift of freshman enrollments to two-year campuses.

Future Analyses. This analysis of freshmen enrollment in degree programs is an initial response to the request of the Legislature, through its 1990 "report card" legislation. It is CHE's intent to continue providing this analysis, and to expand it to measure retention, transfer, and other indices of persistence as students move further through their post-secondary programs. In addition, it will be important to learn something about students who do not declare themselves in a degree program, in order to have a fuller picture of student movement and persistence in the state's postsecondary system.

3. Faculty Involvement in Student Advisement

Advisement Needs. New Mexico colleges and universities recognize a need for student advisement and most believe a large proportion of those needs are being met. Eighteen institutions indicated that 75-100% of their student enrollment needed advising. Of those students needing advising, 15 of 22 institutions noted that 75-100% percent actually received it.

Academic Advising. Although New Mexico public colleges and universities provide a variety of student advisement activities by faculty and other professionals, at most institutions faculty involvement appears to be concentrated in academic advising. Notable faculty effort is also seen in pre-admission advising and course placement assessment.

The basic goal of academic advising is providing students with the information they need to complete their educational programs successfully. Generally, the aim is to provide specific information about courses and program requirements. Some faculty go beyond merely providing this basic information and further assist students in exploring educational and career options and in helping them understand the nature and purpose of higher education.

As indicated in Table 8, below, responses to the CHE survey on student advisement for 1989-1990 indicate half of all institutional effort statewide is directed to academic advisement. Institutions are not distinguished by type in the amount of institutional effort devoted to academic advising. Institutions reporting more than half of their effort in student advisement in academic advising are: NMIMT 70%, NMMI 65%, NMJC and Albuquerque T-VI both 60%, UNM-Gallup 59%, and ENMU 55%.

Further information concerning satisfaction with the types of student advisement provided is needed from all institutions.

Table 8. Average Statewide Institutional Effort in Student Advisement *

Pre-admission Advising	10%
Placement Assessment	10%
Career Counseling	20%
Academic Advising	50%
Personal Counseling	5%
Other (orientation, transfer counseling, job placement, special needs)	5%

* 22 of 23 institutions responded to this question. It should be noted that some institutions have no centralized faculty effort reporting system.

Students Assigned Faculty Advisers. Students whose goal is to obtain a certificate or a degree are more likely to be assigned a faculty adviser than are non-degree students. Further, certificate and degree students are more likely to be assigned a faculty adviser if they have declared a major than if they have not, regardless of the type of institution they attend. Survey results show faculty advisers are assigned to students who have declared a major at 15 institutions and to students who have not declared a major at only eight institutions.

The data also indicate that full-time students have a slight edge over part-time students in being assigned a faculty adviser, full-time students being assigned faculty advisers at 15 institutions, while part-time students are assigned advisers at 12 institutions. Institutional policies and comments from respondents suggest that part-time students are most often assigned a faculty adviser if they are seeking a certificate or degree. At some institutions part-time students are assigned a faculty adviser after they have completed a certain number of hours or upon request.

It is also noted that students are advised by non-academic counselors as well as by faculty members. Many students who are not counseled by faculty do receive counseling from other professionals. In some colleges and universities, advising is done by staff of advisement centers.

Proportion of Student Advisement Done by Faculty. Statewide the institutions vary greatly in the percentage of all student advisement done by faculty. Such factors as student enrollment, faculty size, full-time/part-time faculty ratios, the use of advisement centers and other professionals in advisement, perceived need, and the number and kinds of student advisement services offered, impact this determination. Institutional disparity is reflected in Table 9.

Table 9. Percentage of All Student Advisement Done by Faculty

0%- 25%: UNM-Valencia, ENMU-Clovis, NMSU-Alamogordo, NNMCC, NMMI, AT-VI
25%- 50%: NMSU-Grants, ENMU-Roswell, NMJC, SFCC
50%- 75%: NMIMT, NMHU, UNM-Gallup, SJC, TAVS
75%-100%: ENMU, WNMU, NMSU-Dona Ana, LVTI

Not Available: UNM, NMSU, UNM-Los Alamos, NMSU-Carlsbad

One institution, NNMCC, specifically noted an institutional goal to increase faculty participation in student advisement and has received a federal grant to focus on strengthening its faculty advising system.

Faculty Contracts and Advisement Activities. At 15 two- and four-year institutions, student advisement is a required part of each full-time undergraduate faculty member's job description or contract.

Student advisement is generally not included in a part-time faculty member's contract. Part-time faculty advising varies with departmental expectations within the colleges.

Time Spent Per Student in Student Advisement. Sixteen institutions estimate that in 1989-1990 undergraduate faculty spent from one to four hours per student, per semester in student advisement. Institutions are not distinguished by type in this statistic.

Faculty participation in student advisement includes a variety of activities. Full-time undergraduate faculty at nearly all institutions provide individual consultation during registration and scheduled office hours. Many faculty are also involved in ongoing, informal advisement before and after class and at other times. The latter may include tutoring on course work. At several institutions full-time faculty also participate in advisement workshops and student orientation. At some institutions faculty participate in student success modules and fast lane advising sessions conducted during the semester.

4. Percentage of Developmental Courses Taught by Full-Time Faculty

New Mexico's 1990 "report card" legislation asks for a report on the percentage of remedial/developmental education courses taught by full-time faculty at the state's two-year postsecondary institutions. Only 24% of the faculty at these institutions are employed full time, compared to about 40% at two-year public institutions nationwide. The remaining 76% part-time faculty members teach, on the average, only about a half-time load. Thus, the "expected" rate of teaching remedial courses, adjusting for part-time teaching loads and assuming that remedial courses were assigned randomly among all faculty, is greater than 24% for full-time faculty and less than 76% for part-time faculty.

Table 10, page 27, displays Fall 1989 remedial teaching information for the 14 public two-year campuses for which data were available. The table shows the share of instruction in remedial courses for full-time faculty, compared to their unadjusted representation among all faculty members and compared to their estimated availability to teach those courses, taking into account the average teaching loads of part-time faculty. For example, at UNM-Gallup 44 remedial courses were taught in Fall 1989, 73% of them by full-time faculty. Only 22% of Gallup's faculty members are employed full-time, but they represent an estimated 36% of the total instruction of the campus, taking into account the fact that, on the average, part-time faculty teach only a half-time load.

Table 10. Developmental Instruction by Full-Time Faculty

Institution	Number of Remedial Courses Fall '89	Taught by Full-Time Faculty	Percent Faculty Employed Full-Time	Full-Time as % of Total FTE Faculty*
UNM Gallup	44	73%	22%	36%
UNM Los Alamos**	8	-0-	-0-	-0-
UNM Valencia	19	37%	14%	28%
NMSU Alamogordo	41	46%	25%	45%
NMSU Carlsbad	25	52%	22%	42%
NMSU Grants	27	56%	16%	32%
NMSU Dona Ana***	171	53%	25%	46%
ENMU Clovis	9	44%	19%	27%
ENMU Roswell	28	43%	21%	35%
San Juan College	35	43%	26%	36%
Santa Fe C.C.	55	6%	3%	6%
New Mexico J.C.	17	71%	50%	66%
Northern NM C.C.	31	48%	37%	59%
Albuquerque T-VI	261	86%	32%	48%
Total	771	60%	24%	40%

Source: CHE Staff File, 1989-90: September 2, 1990, Report.

* Estimation of full-time faculty as a percentage of total full-time-equivalent faculty is based upon 1985-86 data on faculty workloads, showing specifically that the average load for part-time faculty is approximately .4 or .5 FTE, depending upon the institution.

** The Los Alamos Branch employs no full-time faculty.

*** Data on faculty status at the Dona Ana Branch were available only for 70% of the 171 remedial courses.

In comparison to either measure of full-time faculty availability--the percentage of faculty who are full time or the percentage of FTE instruction time borne by full-time faculty--New Mexico's two-year institutions generally appear to staff their remedial courses with full-time faculty members at or above the expected level. In fact, on a statewide basis, remedial courses are staffed by full-time faculty members at two or three times the rate that might be expected, given the relatively small number of full-time faculty members actually employed by two-year institutions.

As one point of reference, a 1990 study of two-year public institutions in Texas reported that full-time faculty represent about 70% of the total FTE available, but teach only 57% of the remedial courses offered at their institutions.

POLICY IMPLICATION. New Mexico's two year post-secondary institutions appear to be assigning full-time faculty to instruction in remedial courses at or above the rate that would be expected, based upon the balance of full-time and part-time faculty employed. There is no evidence that instruction of remedial courses is being relegated to part-time, potentially less experienced faculty, nor does there appear to be reason for any statewide policy initiative on this topic.

5. Percentage of Lower Division Courses Taught by Full-time Faculty

The 1990 "report card" legislation asks for a report on the percentage of lower division courses taught by full professors at four-year postsecondary institutions. Lower division courses typically have course identification numbers less than 300 and are intended for college freshmen and sophomores. Full professors represent the most senior rank of faculty, in Fall 1989 numbering about 770 of the approximately 2,000 faculty members at the state's six four-year institutions. (This portion of the faculty, 38%, is also characteristic of four-year institutions nationwide.) Not all full professors have teaching duties and some have only partial teaching assignments; adjusting for this resulted in 674 full professors with a full-time-teaching equivalency of 522.

Table 11, page 29, summarizes the assignment of full professors to instruction of lower division courses in Fall 1989. The last column of the table shows the relative availability of full professors to teach these courses, in terms of their percentage of the total full-time-equivalent teaching staff employed (excluding graduate student teaching assistants).

Among the six four-year institutions, full professors at New Mexico Highlands University appear to be the closest to carrying their proportionate share of lower division instruction.

Table 11 suggests that, if course assignments were made randomly, full professors are under-represented among the instructors of lower division courses. However, there are reasons why such assignments are not random. There is a strong tradition of allowing senior faculty to have greater choice in the courses they teach, coupled with a frequent faculty preference for teaching smaller, advanced classes. At least in some disciplines, upper division and graduate courses are more appropriately taught by senior faculty. In addition, in cases such as law or medical school faculty, all teaching is at the graduate level and there is little or no real opportunity for these faculty members to teach lower division classes. Any future analyses on this topic should develop better estimates of the "availability" of senior faculty for lower division teaching.

Table 11. Lower Division Instruction by Full Professors

	Number Full Profs Teaching	Full-time Equivalent Teaching Full Profs	Number Lower Division Courses	Percent Taught by Full Profs	Percent SCH Taught by Full Profs	Full Profs as % of Total FTE Faculty *
UNM	322	250	1,721**	13%	20%	36%
NMSU	221	173	1,584	10%	21%	33%
NMHU	40	32	249	30%	35%	32%
WNMU	15	13	134**	11%	24%	22%
ENMU	24	23	496	12%	16%	20%
NMIMT	52	31	151	11%	24%	41%
Total	674	522	4,335	13%	21%	33%

Source: CHE Staff File, 1989-90, and Lower Division Instruction Report dated September 2, 1990; full-time equivalency is based upon institutional definitions.

* This is one estimate of the relative availability of full professors to teach: in this case, the total FTE instruction by full professors divided by that for all faculty. Adding teaching assistants into the calculation has the effect of reducing this index at most institutions, and by about four percentage points statewide. This measure of availability does not take into account the fact that a full time teaching load for full professors usually ranges from two to four classes, depending upon the institution and department, in contrast to lower ranks where a full time teaching load usually is defined as four or five classes. Adjusting the availability estimates based upon faculty teaching load data from 1985-86 results in values that are about five percentage points lower than the above.

** UNM taught an additional 185 lower division courses (10% of their total) for which the status of the instructor is unknown. WNMU taught an additional 72 lower division courses (35% of their total) for which the status of the instructor is unknown.

POLICY IMPLICATION. CHE, through its statewide strategic plan and its encouragement of local institutional plans, has taken the position that postsecondary institutions should identify locally appropriate ways to increase their quality of instruction. The Commission also has urged improvement in the retention rate of postsecondary students. Student attrition is particularly high within the first year of enrollment. One factor affecting student persistence undoubtedly is the instruction received in lower division courses.

As one dimension of their review of instructional quality, institutions might examine the extent to which students in introductory, survey, and other lower division courses--which often include students seeking to broaden their education in addition to those beginning a specialization--have access to the full range of institutional faculty, assigning instruction of lower division courses to individual faculty members who are most capable of providing quality teaching, not simply to those with less seniority.

6. Student Participation in Sponsored Research Programs

1989-1990 Participation in Sponsored Research Programs. In surveying New Mexico universities concerning student participation in sponsored research programs, research was defined to include all externally sponsored projects which include scholarly effort but not to include sponsored instruction nor sponsored public service projects. Student participation may include but is not necessarily limited to: assistance in preparation of proposals and/or reports; acting as an experimental subject; doing library and literature searches; assembling, fabricating or maintaining equipment; conducting experiments or trials; making observations and/or recording data; and analyzing data or other information.

About 8% of undergraduates and 23% of graduate students at New Mexico's research institutions participate in research programs, as shown in Tables 12 and 13, below. The highest proportion of student participation in research at both graduate and undergraduate levels is at NMIMT, followed by NMSU and UNM.

Table 12. Student Participation in Sponsored Research Programs
Research Institutions: Undergraduates

	UNM	NMSU	NMIMT	TOTAL
Estimated Number of Undergraduate Participants*	838	1,358	130	2,326
Enrolled Undergraduates, Fall 1989**	16,185	11,439	724	28,348
Percent Undergraduates Participating	5.2%	11.9%	17.9%	8.2%

* Source: CHE survey of institutions.
** Source: CHE Database, The Annual Report Card, September 19, 1990. Enrollments exclude non-degree students.

Table 13. Student Participation in Sponsored Research Programs
Research Institutions: Graduates

	UNM	NMSU	NMIMT	TOTAL
Estimated Number of Graduate and First-Professional Participants*	839	498	116	1,453
Enrolled Graduate Plus First- Professional Students, Fall 1989**	4,484	1,702	250	6,436
Percent Graduates Plus First-Professional Students Participating	18.7%	29.3%	46.4%	23.0%

* Source: CHE survey of institutions.
** Source: CHE Database, The Annual Report Card, September 19, 1990. Enrollments exclude non-degree students.

Tables 14 and 15, indicate limited student participation in research at Eastern, Highlands, and Western at both undergraduate and graduate levels.

Table 14. Student Participation in Sponsored Research Programs Regional Universities: Undergraduates

	ENMU	NMHU	WNMU	TOTAL
Estimated Number of Undergraduate Participants*	6	26	33	65
Enrolled Undergraduates, Fall 1989**	3,069	1,662	1,383	6,114
Percent Undergraduates Participating	0.2%	1.7%	2.4%	1.1%

* Source: CHE survey of institutions.

** Source: CHE Database, The Annual Report Card, September 19, 1990. Enrollments exclude non-degree students.

Table 15. Student Participation in Sponsored Research Programs Regional Universities: Graduates

	ENMU	NMHU	WNMU	TOTAL
Estimated Number of Graduate Participants*	7	12	3	22
Enrolled Graduate Students, Fall 1989**	330	228	154	712
Percent Graduate Students Participating	2.1%	5.3%	1.9%	3.1%

* Source: CHE survey of institutions.

** Source: CHE Database, The Annual Report Card, September 19, 1990. Enrollments exclude non-degree students.

7. Graduate Students: Where did they Earn their Undergraduate Degrees?

About one-third of New Mexico graduate students are attending universities where they received their undergraduate degrees, as shown in Tables 16 and 17, page 32. Exceptions include NMIMT with 16% and ENMU with 42% of their Fall 1989 first-time graduate students continuing their educations at the same institutions.

Nearly a quarter of the first-time graduate students and first professional students at UNM received their undergraduate degrees from other New Mexico universities. NMSU and WNMU have the largest proportion of out-of-state graduate students with 56% and 63%, respectively. Though the numbers are small, NMIMT has the highest proportion of graduate students from foreign countries.

Table 16. Research Universities: Source of Undergraduate Degrees

Fall 1989 First-time Graduate and First Professional Students

Undergraduate degree from	UNM		NMSU	NMIMT	TOTAL
	Graduate Programs	Law/Med Schools			
Institution	878 (31%)	217 (35%)	113 (33%)	9 (16%)	1,217 (32%)
Other NM Institutions	647 (23%)	149 (24%)	21 (6%)	3 (5%)	820 (21%)
Other States	1,110 (40%)	244 (40%)	191 (56%)	16 (28%)	1,561 (41%)
Other Countries	169 (6%)	5 (1%)	18 (5%)	29 (51%)	221 (6%)
TOTAL	2,804 (100%)	615 (100%)	343 (100%)	57 (100%)	3,819 (100%)

Source: CHE survey of institutions.

Table 17. Regional Universities: Source of Undergraduate Degrees

Fall 1989 First-time Graduate Students

Undergraduate degree from	ENMU	NMHU	WNMU	TOTAL
Institution	48 (42%)	21 (34%)	7 (29%)	76 (38%)
Other NM Institutions	19 (16%)	9 (15%)	2 (8%)	30 (15%)
Other States	41 (36%)	29 (48%)	15 (63%)	85 (42%)
Other Countries	7 (6%)	2 (3%)	0 (0%)	9 (5%)
TOTAL	115 (100%)	61 (100%)	24 (100%)	200 (100%)

Source: CHE survey of institutions.

8. Student Outcome Assessment

Background and CHE Request. Throughout the United States, postsecondary institutions have largely confined assessment of the success of their undergraduate education programs to the examinations or other measures used in individual courses of instruction. Because instruction, evaluation, and decisions about eligibility for degrees are the prerogative of the faculty, this type of assessment is likely to remain central to institutional assessment of student success.

Some institutions also use comprehensive examinations or capstone experiences to demonstrate students' achievements, particularly in their major fields of study. For students completing professional programs requiring state or national competency examinations before entering the workforce--nursing or occupational therapy, for example--some institutions measure program success in terms of the percentage of their students passing such exams.

Like postsecondary institutions in other states, New Mexico's public postsecondary institutions are now considering more extensive ways to evaluate the successes of their programs. Information on this topic is found in the institutions' five-year plans, submitted to the CHE in the Spring of 1990. As one part of the 1990 institutional plans, the CHE requested descriptions of current methods for assessing outcomes of institutional programs, including measures of student learning, placement data, and follow-up studies. The following summary reflects information in the 1990 plans, supplemented by additional institutional documents.

Student Outcome Assessment: 1990. Institutions can be clustered into three groups in terms of their progress and intentions regarding measurement of student outcomes. To arrive at this classification, institutional documents were examined for descriptions of current programs or plans to engage in student achievement or competency measurement (defined here as internal assessment other than course examinations, of enrolled students, that could include measures of general education, proficiency in major fields, or both) or in follow-up assessment (performed after students have left the institution, exemplified by measures such as success on post-graduation licensing exams, job and graduate school placements, and student and employer surveys).

A. **Formal Program Implemented.** ENMU has several years of experience using a standardized test to measure students' general knowledge, attitudes, and values at the end of their sophomore year in comparison to measures made at the beginning of their freshman year. Eastern is now pilot testing a second component of its assessment program--assessment of discipline-based knowledge in students' major fields at the end of the senior year--and is planning a third component--follow-up tracking of students for several years after graduation. WNMU will begin implementation of a similar multi-component program in Fall 1990.

Four institutions, SFCC, ENMU-Clovis, SJC, and Albuquerque T-VI, have implemented programs that regularly track students following graduation to assess institutional impacts through student and/or employer evaluations. Each of these institutions has a strong vocational-technical program, where such follow-ups usually are concentrated. New Mexico State University will implement a regular follow-up program in 1990.

B. **Substantial Planning.** Eight of the 23 public post-secondary institutions have engaged in a substantial amount of planning and in some cases also have assessed student outcomes in some of their programs. In a few cases, these institutions are seeking some form of institution-wide assessment of general knowledge and/or proficiency in critical thinking, plus follow-up surveys of students and employers. Other institutions envision less uniform assessment, emphasizing a preference for using different methods across the various academic disciplines or vocational specialties.

C. **Early Stages Only.** Eight institutions are still in the early stages of planning their outcomes assessment systems.

Table 18 shows the CHE categorization of student outcome assessments as based on the institutional plans.

Table 18. CHE Staff Categorization of the Status of Student Outcome Assessment, Summer 1990 *

(1) Institutions that Have Implemented Some Formal Institutional Program for Assessing Student Outcomes

	Student Achievement/ Competency Measures	Follow-Up Measures
ENMU	Partially Implemented	Planning
SFCC		Implemented
ENMU-Clovis		Implemented
AT-VI		Partially Implemented
SJC		Partially Implemented
WNMU	Initial Imp. Fall '90	Planning
NMSU		Initial Imp. 1990

(2) Substantial Planning Accomplished, Including Some Data Collection

ENMU-Roswell
NMHU
NMMI
NMSU-Alamogordo
NMSU-Dona Ana
NMSU-Grants
UNM
UNM-Gallup

(3) Early in Planning

LVTI
NMJC
NMIMT
NNMCC
NMSU-Carlsbad
TAVS
UNM-Los Alamos
UNM-Valencia

---

* Categorization based upon content of the 1990 institutional plans, supplemented by additional institutional documents.

A few institutions report having received outside support for development of their assessment system or the use of some nationwide assessment service as part of their system. Many institutions cite the need for additional financial support before they will be able to make progress in developing a system.

Viewed statewide, student outcome assessment is entering a new period of development. Most institutions are attempting to expand assessment programs. However, measurement of student learning and assessment of students' success after leaving their institutions are complex activities and there is little agreement on the best techniques to use. The best outcome measures, those that will be most useful in improving student outcomes, probably will vary with the missions and particular programs of the institutions. Thus, in terms of the comparative data contemplated in Section 21-1-26.6 NMSA 1978, there is little information about student success available now and only limited inter-institutional comparisons will be possible in the near future.

9. Placement Data on Graduates

Only a few of New Mexico's postsecondary institutions regularly compile data regarding placement of their students following graduation.

Descriptions in the institutions' five-year plans, supplemented by conversations with institution administrators, reveal a wide variation in placement programs and data collection. Placement assistance usually is concentrated on posting job listings sent by employers to an institution's placement office, making interest or skill testing available to students, and providing help in constructing resumes or preparing for interviews. Some institutions regularly collect and analyze data regarding the number of students seeking placement and the number obtaining training-related jobs, placed in non-related jobs, or still looking for employment. Others have placement assistance available, but collect little or no data.

Although information about job placement and continuing education would appear to be a useful index of an institution's success, there are several limiting factors. At some institutions, many students are not seeking jobs or further education following completion of their programs; this is increasingly the case as a greater number of already employed students enroll part time. Traditionally, placement offices have at most assembled information about job placements, but not about the numbers of students proceeding to baccalaureate, graduate, or professional programs. Even at institutions with the most extensive placement programs, the utility of placement information is limited by the fact that students seek placement assistance voluntarily, thereby restricting the pool of students on which information can be gathered. For these reasons, placement data may only reflect the outcome for a small fraction of an institution's students.

Those postsecondary institutions that prepare students in vocational-technical fields currently make the greatest use of placement data to assess institutional performance. Albuquerque T-VI, for example, annually surveys all of its vocational-technical graduates regarding job placement and publishes a summary of these numbers for each program. Several other two-year institutions have implemented, or are in the process of implementing, similar survey programs, including SFCC, SJC, ENMU-Clovis, and NMSU-Dona Ana.

10. Student Transfer from Two-Year to Four-Year Institutions

Some 2,215 students who enrolled in a two-year college in Fall 1988 migrated to state universities in Fall 1989. Table 19, shows most of these students transferred to UNM, followed by NMSU, ENMU, NMHU, WNMU, and NMIMT.

Table 19. Migration of Students from Two-Year to Four-Institutions

	Students Migrating To Four-Year Institutions						
Students Migrating From Two-Year Institutions	UNM	NMSU	NMHU	WNMU	ENMU	NMIMT	TOTAL MIGRATED TO FOUR-YEAR INSTITUTIONS *
UNM-Gallup	51	10	—	1	2	—	64 (4%)
UNM-Los Alamos	58	13	—	—	1	—	72 (8%)
UNM-Valencia	94	7	3	1	—	1	106 (10%)
NMSU-Alamogordo	12	124	1	1	3	—	141 (8%)
NMSU-Carlsbad	2	43	—	—	9	—	54 (6%)
NMSU-Grants	8	15	—	—	—	—	23 (5%)
NMSU-Dona Ana	8	469	1	4	3	—	485 (30%)
ENMU-Clovis	3	9	3	—	227	—	242 (9%)
ENMU-Roswell	8	32	1	—	60	1	102 (7%)
SJC	21	37	5	—	1	1	65 (2%)
SFCC	57	35	9	—	—	2	103 (4%)
NMJC	16	37	2	2	37	1	95 (4%)
NNMCC	16	12	10	—	2	—	40 (3%)
Albuquerque T-VI	567	37	10	4	5	—	623 (N/A)
TOTAL	921	880	45	13	350	6	2,215

* Percent of 1988 Fall Headcount institutional enrollment.

Source: CHE database, The Annual Report Card, Table D, September 25, 1990.

UNM attracts most of its transfer students from Albuquerque T-VI, its own branches, and SFCC. NMSU draws from all the two-year colleges, particularly its branches, the independent community colleges, and ENMU-Roswell. ENMU attracts students primarily from its own branches and NMJC. NMHU shows transfers predominately from NNMCC, Albuquerque T-VI, and SFCC. Few students transfer from a two-year institution to either WNMU or NMIMT.

F. ARTICULATION

The Course Transfer Activity Study is conducted in response to a bill passed by the 1989 Legislature requiring public colleges and universities to report numbers of credits accepted and denied in transfer and reasons for their denial. (A transfer is defined as any student who enrolls at an institution and requests that one or more transcripts from other institutions be evaluated.)

- Data submitted for the 1989-1990 academic year indicate 1,728 students requested a total of 1,912 transcripts be evaluated. This is about three percent of statewide 1989 Fall headcount enrollment, a low level of transfer activity.

- Students moving from a UNM or NMSU branch to the main campus are considered native and not transfer students. The CHE migration study shows 203 and 651 students migrated from the branch campuses to the main campus for UNM and NMSU, respectively. Including these students, 2,582 students, or about 5%, moved from a two-year to a four-year campus.

- Of the 66,763 student credit hours requested to be evaluated, 46,053 were accepted and 19,977 were denied (see Table 20, page 40).

- The largest volume of course transfer acceptance occurs at the four-year institutions (in order of volume: UNM, NMSU, ENMU, NMHU, WNMU, NMIMT).

- However, Albuquerque T-VI ranks second only to UNM in volume of transfer acceptance statewide.

- Among independent two-year colleges SFCC is followed by NNMCC, ENMU-Roswell, NMJC, SJC, ENMU-Clovis, and LVTI in volume of acceptance.

- Table 21, page 41, shows that credits were denied for the following reasons (from greater to lesser frequency): grades less than C; no equivalent; developmental studies; other reasons; repeated class; vocational class; accreditation policies. Table 21A presents the same information graphically.

- Regents are currently reviewing a policy addendum on the treatment of transfer credits. Several facets of the educational process need to be considered, such as, (1) treating courses in which transfer students earned a grade of "D" in the same manner as "D" grades of students originally matriculated, as they apply to degree requirements, and (2) treating the catalog of matriculation in the same manner for both groups.

Table 20. Disposition of Transfer Credits

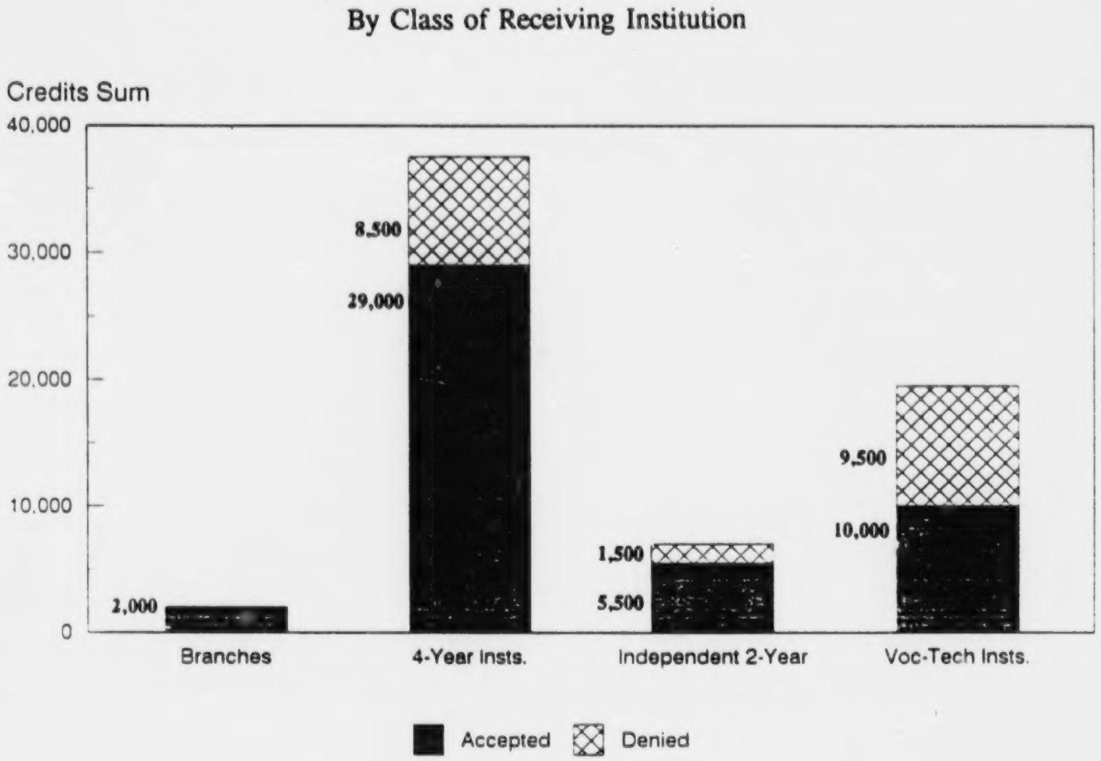


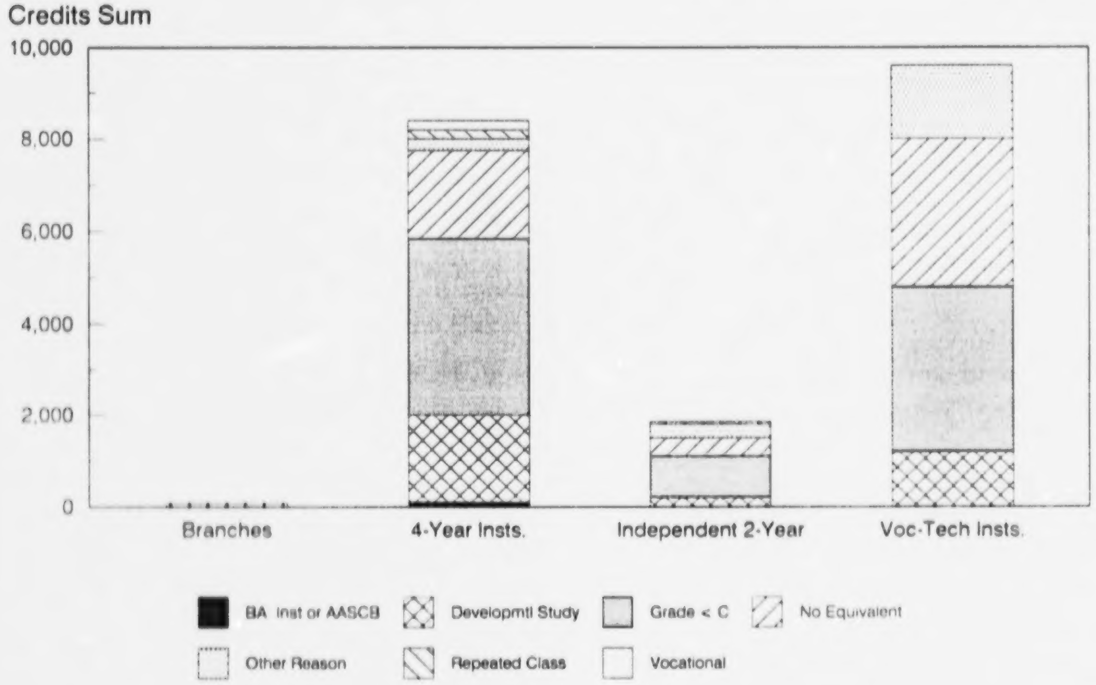
Table 21. Disposition of Denied Credits

By Type of Receiving Institution and Reason for Denial

	Branches	4-Year	Indep. 2-Year	Vo-Tech
BA: Inst or AASCB	-	100	-	-
Development Study	75	1,900	200	1,200
Grade < C	-	3,850	900	3,600
No Equivalent	-	1,900	400	3,200
Other Reason	-	250	300	1,600
Repeated Class	-	200	50	-
Vocational	-	200	-	-

Table 21A. Disposition of Denied Credits - Graph

By Type of Receiving Institution and Reason for Denial



G. FINANCING POSTSECONDARY EDUCATION

1. Funding Formulas

A. Two-Year Institutions

The instruction and general expenditure level for two-year institutions, under the formula adopted during the 1990 legislative session, is calculated as shown here. (CHE proposed that funding increases resulting from these formula modifications be phased in over the next few years. Approximately one-third of the additional cost was funded for 1990-91.)

1. Funding for INSTRUCTION is determined by:

   A. Calculating the total number of student credit hours generated during the past year in each of seven formula cells (clusters) according to the discipline taught. A specific funding cluster has been established for developmental education.

   B. Multiplying the SCH generated in each cell by a specific factor that represents the formula costs per SCH for faculty salaries, other salaries (e.g., technicians), fringe benefits, and other costs.

   C. Totaling the results of the above calculations.

PLUS

2. Funding for ACADEMIC SUPPORT is determined by:

   A. Calculating an amount for replacement of 5% of an enrollment-based standard collection of library materials.

   B. Determining a funding level for library operations based on a core of $81,256 plus $26,190 for each 200 FTE students between 600 and 2,000, and for each 500 FTE over 2,000.

   C. Determining a funding level for academic administration at 10% of formula instruction for branch colleges and 12% for independent colleges.

PLUS

3. Funding for STUDENT SERVICES is determined by:

   A. Providing a base funding level of $156,127 to support a core student services function of approximately four positions.

   B. Adding funding for enrollments over 400 headcount students by dividing the previous fall term student headcount enrollment in excess of 400 by 150 for the branch colleges and by 125 for the independent colleges, and multiplying the result by $28,782.

PLUS

4. Funding for INSTITUTIONAL SUPPORT (central administration, etc.) is determined by:

   A. Providing a base funding level of $318,646 to support a core institutional support function of approximately six FTE positions. The base level is intended to cover the institutional support requirements of institutions that have total current fund expenditures below $2 million.

   B. Adding $34,198 in funding above the core level for current fund expenditures above $2 million in increments according to the following schedule:

Between $2 - 5 million	Each $300,000
Between $5 - 10 million	Each $350,000
Above $10 million	Each $400,000

PLUS

5. Funding for PLANT OPERATIONS and MAINTENANCE is calculated by dividing the gross square footage of eligible space by 11,000, multiplying the result by $25,935 and adjusting according to an intensity of use factor.

PLUS

6. UTILITY expenditures from the previous fiscal year are increased by a two-year inflation factor.

PLUS

7. A formula amount for BUILDING RENEWAL and REPLACEMENT, based on the replacement cost and age of institutional facilities, is determined for transfer to plant funds.

PLUS

8. A transfer to student financial aid is determined for the STATE SCHOLARSHIP PROGRAM in an amount equal to 3% of the previous fall headcount enrollment times the current annual tuition and fee rates.

MINUS

9. TUITION revenue at an assumed level, with a recognition that institutional governing boards determine actual rates.

MINUS

10. Local MILL LEVY revenue based on current fiscal year estimated receipts.

MINUS

11. PERMANENT FUND revenue (NNMCC) to the amount required to fund the building renewal and replacement formula.

MINUS

12. MISCELLANEOUS FEE revenue at an assumed level.

MINUS

13. 80% of current fund INTEREST earned in the previous year.

The amount which results from all of the above calculations is recommended for the state General Fund Appropriation.

B. Four-Year Institutions

The instruction and general expenditure level for the four-year institutions is calculated as shown here. Funding increases resulting from 1990 legislative actions are being phased in.

1. Funding for INSTRUCTION is calculated by:

   A. Using minimum levels of instructional expenditure established at the 1989-90 formula expenditure level,

OR

Using all SCH averaged over the past three years assigned to one of 39 cells according to both the level and discipline taught.

(If enrollment in the most recent year has increased significantly, the difference between

60% of recent year enrollments and the rolling average may be added to provide for marginal costs of additional students.)

B. For each cell, the SCH figure is multiplied by the result of [average faculty salary divided by productivity ratio] plus other salaries directly associated with faculty support, e.g., technicians, plus [average fringe benefits divided by productivity ratio] plus other costs associated with a faculty position such as travel and supplies.

(For UNM and NMSU an adjustment is made in terms of expenditure levels at carefully selected peer institutions.)

2. Then general funding levels are calculated by adding:

A. The sum of the 39 products (total instructional funding level) multiplied by a factor (17% or 20%) to provide for academic support, including administration, and dean or departmental offices.

PLUS

B. 5% of cost of an appropriate collection based on the institution's programs and levels of instruction for library acquisitions.

PLUS

C. [Total headcount divided by 150] times $35,330 to provide for student services, that is, counseling, admissions and records, and administration of financial aid. (Base funding for 1,500 students is assumed.)

PLUS

D. Previous year's total current fund multiplied by factors as follows to provide for institutional support such as general administration.

$ 0 - 5 million	times 10 %
$ 5 - 10 million	times 8.5%
$10 - 20 million	times 5 %
Above $20 million	times 3.5%

PLUS

E. [Gross square footage divided by 9,500] times $25,936 to provide for plant maintenance.

PLUS

F. Utilities expenditure for previous year plus percentage of that figure provided as two-year inflator by DFA.

3. Then state-supported transfers are calculated by adding:

A. Building Renewal and Replacement Fund.

PLUS

B. State scholarships for residents equal to 3% of previous fall headcount

4. Then the General Fund Appropriation is calculated by subtracting:

A. Tuition revenue at assumed level, with Regents determining actual rates.

MINUS

B. Permanent fund revenue up to the amount required to support the Building Renewal and Replacement formula.

MINUS

C. Miscellaneous fee revenue at an assumed level.

MINUS

D. 80% of previous year's current fund interest revenue.

The amount which results from all of the above calculations is recommended for the state General Fund Appropriation.

Table 22, page 49, depicts the 1990-91 instructional formula factors by type of institution and types of programs.

2. Budget Information

Institutional Operating Budgets. Table 23, page 50, summarizes the institutional Instruction and General operating budgets (unrestricted funds) for 1990-91. The table provides an analysis of the percentage of the budget spent directly on instruction versus the general components of the budget, and an analysis of expenditures per FTE student.

Other budgetary data include: Table 24, page 51, gives a summary of actual faculty salary increases granted by institutions for

Fys 89, 90, and 91; Table 25, page 52, shows capital outlay recommendations vs. actual legislative appropriations during FY 89-90; Table 26, page 53, shows CHE's capital outlay recommendations for FY 90-91, with the projects listed in priority order; Table 27, page 55, graphically depicts the five-year, 1985-1990, sources of capital outlay funding sources for higher education; Table 28, page 56, gives the dollar amounts granted for the same period, broken down by institution; Tables 29, 30, and 31, pages 57-59, show the capital outlay appropriations during 1985-1990 by project type, annual dollar totals, and the percentage of total state appropriations during the previous five years of state capital outlay for higher education; Table 32 pages 60-61, provides data on state funded student financial assistance; and Table 33, page 62, graphically displays total financial aid, by sources, for 1988-89.

Table 22. New Mexico Instructional Formula Factors -- Dollars Per Student Credit Hour 1990-1991

DETAIL OF TWO-YEAR BUSINESS FACTOR

Faculty Salary	40.26
Faculty Fringe	8.33
Other Salaries	2.23
Other Fringe	.46
Other Costs	7.80
Total $/SCH	59.08

TWO-YEAR INSTITUTIONS

BUS	DEVEL	F. ARTS	GEN.ACAD.	HEALTH	SCI.OFF.	TRADES/TECH	
59.08	63.52	74.23	53.92	156.31	73.74	99.88	**LOWER DIVISION**

LARGE UNIVERSITIES (UNM & NMSU)

AG	BIO	BUS	EDUC	ENGIN	F. ARTS	LANG	HEALTH	LAW	LETTERS	MATH	PHY.SCI.	SOC.SCI.	
77.48	75.53	69.74	69.31	116.59	77.60	73.66	128.87	--	69.77	75.40	93.13	53.32	**LOWER DIVISION**
109.85	143.75	98.59	95.11	192.19	131.20	127.31	187.57	--	95.94	166.91	172.77	95.96	**UPPER DIVISION**

SMALL UNIVERSITIES (NMHU, WNMU, ENMU, NMIMT)

AG	BIO	BUS	EDUC	ENGIN	F. ARTS	LANG	HEALTH	LAW	LETTERS	MATH	PHY.SCI.	SOC.SCI.	
86.80	84.86	78.73	77.60	130.13	89.21	85.27	140.96	--	81.28	84.39	106.67	59.53	**LOWER DIVISION**
141.51	181.06	124.38	117.68	230.89	163.84	159.96	221.43	--	115.53	205.61	211.46	120.15	**UPPER DIVISION**

ALL UNIVERSITIES -- GRADUATE INSTRUCTION

AG	BIO	BUS	EDUC	ENGIN	F. ARTS	LANG	HEALTH	LAW	LETTERS	MATH	PHY.SCI.	SOC.SCI.	
--	318.99	174.85	191.96	--	333.31	269.76	393.73	--	250.90	393.52	452.02	230.76	**MASTERS ONLY**
492.00	534.95	224.76	220.23	638.70	362.33	389.60	--	219.19	284.38	564.42	582.01	386.87	**MASTERS AND DOCTORAL**

Table 23. CHE Analysis of I&G Expenditures (FY1990-1991) Operating Budgets -- Unrestricted

		INSTRUCTION			GENERAL			TOTAL I & G	
INSTITUTION	ENTIRE YEAR FTE	BUDGET $,000's	$/ FTE	PERCENT OF I&G	BUDGET $,000's	$/ FTE	PERCENT OF I&G	BUDGET $,000's	$/ FTE
FOUR-YEAR INSTITUTIONS									
UNM	18,678	68,053.2	3643	56.2%	53,092.1	2842	43.8%	121,145.3	6486
NMSU	12,381	43,735.6	3532	57.4%	32,432.5	2620	42.6%	76,168.2	6152
ENMU	3,222	10,420.0	3234	53.4%	9,080.0	2818	46.6%	19,500.0	6052
NMHU	1,969	6,131.4	3114	46.9%	6,952.7	3531	53.1%	13,084.2	6645
WNMU	1,678	4,547.9	2710	46.4%	5,248.5	3128	53.6%	9,796.4	5838
NMIMT	1,005	6,041.0	6011	46.5%	6,961.1	6926	53.5%	13,002.1	12937
TOTAL FOUR-YEAR	38,933	138,929.1	3568	55.0%	113,766.9	2922	45.0%	252,696.0	6491
BRANCH COLLEGES									
ALAMOGORDO	987	2,015.2	2042	55.4%	1,619.4	1641	44.6%	3,634.5	3682
CARLSBAD	594	1,291.8	2175	53.3%	1,132.4	1906	46.7%	2,424.2	4081
DONA ANA	1,263	3,050.7	2415	63.4%	1,763.6	1396	36.6%	4,814.3	3812
GRANTS	312	669.3	2145	43.1%	882.1	2827	56.9%	1,551.4	4972
GALLUP	1,047	2,322.8	2219	57.9%	1,692.4	1616	42.1%	4,015.2	3835
LOS ALAMOS	412	757.3	1838	45.7%	898.1	2180	54.3%	1,655.4	4018
VALENCIA	642	1,084.3	1689	48.0%	1,173.2	1827	52.0%	2,257.5	3516
CLOVIS	1,363	2,740.0	2010	53.0%	2,430.0	1783	47.0%	5,170.0	3793
ROSWELL	1,131	2,605.0	2303	48.0%	2,822.4	2495	52.0%	5,427.4	4799
TOTAL BRANCHES	7,751	16,536.3	2133	53.4%	14,413.6	1860	46.6%	30,950.0	3993
INDEPENDENT TWO-YEAR INSTITUTIONS									
NORTHERN	935	1,934.7	2069	40.8%	2,812.3	3008	59.2%	4,747.0	5077
SANTA FE	1,059	2,545.5	2404	46.8%	2,898.4	2737	53.2%	5,443.8	5141
NMJC	1,342	3,119.2	2324	52.1%	2,869.7	2138	47.9%	5,988.9	4463
SAN JUAN	1,745	3,924.0	2249	46.9%	4,437.3	2543	53.1%	8,361.3	4792
ALBUQUERQUE T-VI	7,520	18,438.1	2452	57.5%	13,655.4	1816	42.5%	32,093.5	4268
LUNA V-TI	734	1,915.9	2610	39.0%	2,991.1	4075	61.0%	4,907.0	6685
TUCUMCARI AVS	175	891.1	5092	54.9%	733.3	4190	45.1%	1,624.4	9282
TOTAL INDEP 2-YEAR	13,510	32,768.5	2425	51.9%	30,397.4	2250	48.1%	63,165.8	4675
TOTAL TWO-YEAR INST	21,261	49,304.8	2319	52.4%	44,811.0	2108	47.6%	94,115.8	4427
GRAND TOTAL	60,194	188,234.0	3127	54.3%	158,577.9	2634	45.7%	346,811.9	5762

NOTE: Entire Year FTE are estimated actuals for 1989-90 based on preliminary formula SCH calculations. Vocational institution enrollment data are CHE staff estimates.

Table 24. Summary of Budgeted Faculty Salary Increases, FYs 1989, 1990, 1991

INSTITUTION	1988-89	1989-90	1990-91
FOUR-YEAR INSTITUTIONS			
UNM Main Campus	7.5%	6.7%	7.0%
Medical Center	5.0%	7.0%	6.5%
NMSU	7.0%	4.0%	6.0%
ENMU	3.7%	5.0%	4.7%
NMHU	4.0%	6.0%	5.0%
WNMU	7.0%	5.5%	6.0%
NMIMT	5.2%	5.0%	5.0%
BRANCH COLLEGES			
ALAMOGORDO	7.0%	4.0%	6.0%
CARLSBAD	7.0%	4.0%	6.0%
DONA ANA	7.0%	4.0%	6.0%
GRANTS	7.0%	4.0%	6.0%
GALLUP	6.0%	5.5%	12.0%
LOS ALAMOS	5.0%	N/A	N/A
VALENCIA	7.0%	6.5%	8.8%
CLOVIS	5.7%	5.4%	4.8%
ROSWELL	4.7%	5.0%	6.0%
INDEPENDENT TWO-YEAR INSTITUTIONS			
NORTHERN	6.0%	8.6%	3.2%
SANTA FE	3.0%	6.3%	6.5%
NMJC	3.0%	7.0%	6.0%
SAN JUAN	5.0%	5.5%	4.0%
ALBUQUERQUE T-VI	6.0%	5.0%	6.0%
LUNA V-TI	6.0%	5.0%	6.0%
TUCUMCARI AVS	6.0%	5.0%	6.0%
SPECIAL SCHOOLS			
NMMI	6.0%	4.9%	7.0%
NMSD	5.0%	5.0%	5.0%
NMSVH	8.5%	6.0%	6.0%

Source: Annual institutional operating budget submissions and telephone follow-up.

Table 25. Capital Outlay Recommendations vs. Legislative Appropriations: FY 1989-1990

Projects in Priority Order	CHE Recommend.	Legislative Amount	Approp. Fund
SIGNIFICANT NEED			
1 WNMU Harlan/McCray/Field House	1,263,000	1,200,000	CPF
2 NMHU Roofing Replacement	535,000	530,000	CPF
3 NMSU-G Roofing Project	200,000	200,000	CPF
4 NNMCC El Rito Auto Shop Vents	40,000	40,000	CPF
5 NMJC Roofing	250,000	225,000	CPF
6 UNM Classroom & Lab Renovation	1,500,000	1,200,000	CPF
7 UNM-LA Mesa Gym Classroom Renov	450,000	454,000	CPF
8 CHE Instructional Equipment Fund	5,000,000	-0-	
9 NMJC Chiller Replacement	150,000	125,000	CPF
	9,388,000	3,974,000	
NEEDED			
10 UNM Science & Engr Complex	8,500,000	-0-	
11 NMSU Chemistry/Earth Sci Addn	8,000,000	-0-	
12 CHE Instructional Equipmt Fund	5,000,000	-0-	
13 NMIMT Library Expansion	3,649,000	5,520,076	GF
14 UNM Hospital Equipment	400,000	450,000	CPF
15 ENMU Tech Bldg Remodel/Addn	600,000	650,000	CPF
16 TAVS Maintenance Shop Facility	100,000	-0-	
17 LVTI Remodel Auto Mech Complex	225,000	225,000	CPF
18 TAVS Truck Driving Range	35,000	*	
19 SFCC Phase II Construction	550,000	450,000	CPF
20 SJC State Match Local GO Bonds	400,000	-0-	
21 NNMCC Espanola Site Improvemnts	130,000	-0-	
22 TAVS Coronado Center Renovation	40,000	*	
23 NNMCC Espanola Fine Arts Bldg Addn	140,000	-0-	
24 TAVS Land Acquisition	45,000	*	
25 NNMCC El Rito Bldg Demolition	30,000	-0-	
* TAVS Land Purchase/Campus Impr		78,800	CPF
	27,844,000	7,373,876	
OTHER FUNDED PROJECTS			
NMIMT Sled Track Facility	-0-	250,000	CPF
TVI Computer System	-0-	50,000	CPF
NNMCC Espanola Education Bldg	-0-	352,000	GF
ENMU Educational TV Project	-0-	175,000	CPF
ENMU Greyhound Arena Boilers	-0-	52,000	CPF
UNM-G Physical Plant Study	-0-	40,000	CPF
	-0-	919,000	
TOTAL		$12,266,876	

FUNDING SOURCES: GF = General Fund CPF = Capital Projects Fund

Table 26. Capital Outlay Recommendations vs. Legislative Appropriations: FY 1990-1991

Projects in Priority Order		CHE Recommend.	Final Appropriation Amount	Fund
SIGNIFICANT NEED				
1	NMHU Academic Buildings Reroofing	290,000	270,000	GF/CPF
2	NMJC Campus Roof Replacement	356,100	300,000	CPF
3	UNM-G Handicapped Access Improvmts	175,000	175,000	CPF
4	NNMCC Portables Purch/Annex Demoltin	158,900	[illegible]25,900	GF
5	ENMU Campus Improvmts & Code Renovatn	750,000	200,000	GF
6	NMSU-DA Class/Ofc/Student Svcs Addn	2,699,247	-0-	GOB
7	NMSU-DA Trades Building Addition	*	*	Local
8	UNM-V Learning Resources Ctr Constr	2,348,250	-0-	GOB
9	NMHU Library Addn/Info Ctr Constr	3,934,050	-0-	GOB
10	UNM Optoelectronics Materl Ctr Constr	13,534,000	-0-	GOB
11	NMSU Chem/Geol/Biology Bldg Constr	9,140,500	-0-	
12	WNMU Light/Bowden/Old Plant Renov	838,300	-0-	GOB
13	TAVS Campus Constr/Renovatn Projects	350,000	75,000	CPF
14	ENMU-C Trade Road Land Acquisition	225,000	-0-	GOB
15	SFCC Campus Construction	2,913,850	-0-	GOB
	SUBTOTAL	37,713,197	1,245,900	
NEEDED				
16	NMHU Lab and Classroom Renovation	1,010,000	-0-	
17	UNM Science & Tech Complex Constr	8,761,750	-0-	
18	T-VI Phone Registr/Academic Computr	1,052,500	50,000	CPF
19	SJC Educational Services Bldg Constr	3,329,349	-0-	
20	NMJC Heidel Hall Lab Addn/Renovatn	1,206,950	-0-	
21	UNM General Classroom Bldg Planning	6,075,150	-0-	
22	UNM Children's Psych Hospital Expansn	1,125,240	-0-	GOB
23	UNM Hospital Equipment Purchase	800,000	120,000	CPF
24	UNM-G Classrm/Lecture Hall Constr	940,815	-0-	
25	ENMU Admin/Academic Computer System	525,000	-0-	
26	NNMCC Campus Safety/Handicappd Impr	150,000	75,000	CPF
27	UNM Central Campus Handicappd Impr	400,000	-0-	
28	NNMCC Fine Arts Bldg Addition	171,700	-0-	
29	NNMCC El Rito Old Bldgs Demolition	40,000	-0-	
30	NMSU-C Remodeling	227,250	-0-	
31	ENMU Roosevelt Hall Renovation	1,363,500	-0-	
32	NMIMT Workman Center Renovation	2,020,000	500,000	STB
33	NMSU Chem Bldg Remodeling/Repair	4,040,000	-0-	
34	NMSD Albq Preschool Bldg Constructn	910,010	-0-	
35	UNM-LA Library/Classrm/Bkstore Exp	505,000	-0-	
		34,654,214	745,000	

* NMSU-DA Trades Bldg Addition to be funded by Local G.O. Bonds.

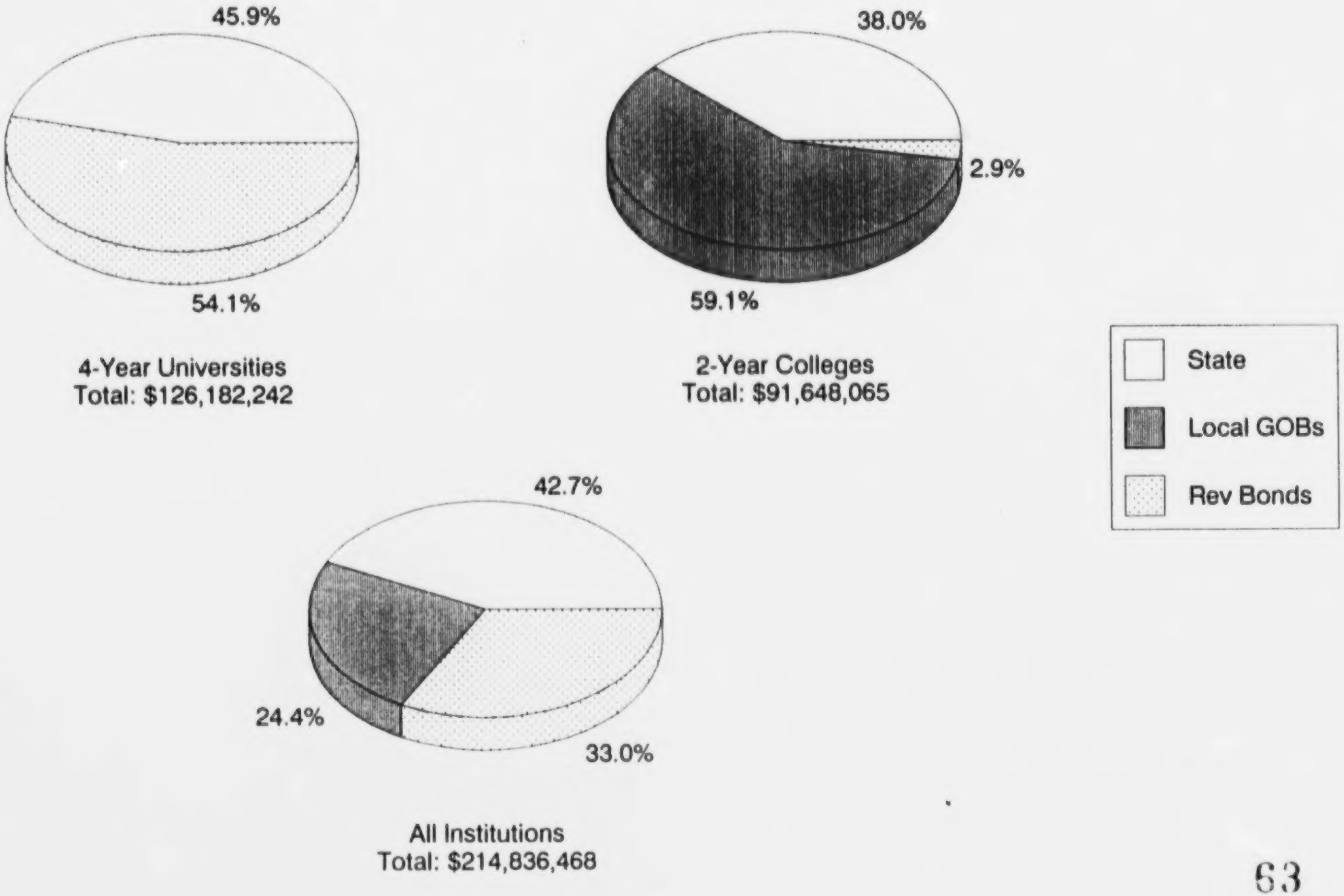
Table 26 (continued)

Projects in Priority Order	CHE Recommend.	Final Appropriation Amount	Fund
OTHER FUNDED PROJECTS			
Statewide Instructional TV Network		-0-	GOB
Taos Off-Campus Instructional Bldg		1,600,000	STB
ENMU Instructional TV Extension		125,000	CPF
LVTI Student Activities Ctr Constr		-0-	GOB
NNMCC Admin Bldg Plan/Design/Constr		-0-	GOB
NNMCC Student Svcs Ctr Renov/Addn		1,500,000	STB
UNM Football Stadium Renov/Equip		-0-	GOB
UNM Cancer Ctr Expansion Planning		-0-	GOB
UNM Law Library Renov/Impr/Equipmt		140,000	CPF
	0	3,365,000	
TOTAL		5,355,900	

FUNDING SOURCES: GOB = General Obligation Bonds GF = General Fund
CPF = Capital Projects Fund STB = Severance Tax Bonds

NOTE: Statewide G. O. Bond issue was disapproved by voters on 11/6/90.

Table 27. Capital Outlay Funding Sources for Higher Education, 1985-1990



4-Year Universities
Total: $126,182,242

2-Year Colleges
Total: $91,648,065

All Institutions
Total: $214,836,468

Sources: CHE databases (PJT.DBF and CP.DBF)

Table 28. Capital Outlay Funding Sources: State Appropriations Compared to Bond Issues, 1985-1990

Appropriations Compared to Institutional and Local Bond Issues

	State Appropriatns	%Total	Local G.O. Bonds	%Total	Institutional Revenue Bonds	%Total	TOTAL
4-YEAR INSTITUTIONS							
ENMU	7,386,805	88.1%	0	0.0%	1,000,000	11.9%	8,386,805
NMHU	3,394,214	62.9%	0	0.0%	2,000,000	37.1%	5,394,214
NMIMT	11,532,139	100.0%	0	0.0%	0	0.0%	11,532,139
NMSU	17,055,635	65.5%	0	0.0%	9,000,000	34.5%	26,055,635
UNM	16,371,737	23.2%	0	0.0%	54,283,403	76.8%	70,655,140
WNMU	2,223,309	53.5%	0	0.0%	1,935,000	46.5%	4,158,309
4-Yr Subtotal	57,963,839	45.9%	0	0.0%	68,218,403	54.1%	126,182,242
2-YEAR INSTITUTIONS							
ENMU-Roswell	2,453,211	44.2%	3,100,000	55.8%	0	0.0%	5,553,211
NMSU-Alamogordo	519,682	11.5%	4,000,000	88.5%	0	0.0%	4,519,682
NMSU-Carlsbad	1,253,582	100.0%	0	0.0%	0	0.0%	1,253,582
NMSU-Dona Ana	76,309	2.6%	2,900,000	97.4%	0	0.0%	2,976,309
NMSU-Grants	242,296	100.0%	0	0.0%	0	0.0%	242,296
UNM-Gallup	588,325	100.0%	0	0.0%	0	0.0%	588,325
UNM-Los Alamos	876,677	100.0%	0	0.0%	0	0.0%	876,677
UNM-Valencia	48,107	100.0%	0	0.0%	0	0.0%	48,107
Clovis CC	1,634,298	100.0%	0	0.0%	0	0.0%	1,634,298
SJC	3,173,642	20.9%	12,000,000	79.1%	0	0.0%	15,173,642
SFCC	7,298,097	26.4%	20,370,000	73.6%	0	0.0%	27,668,097
NNMCC	7,515,225	100.0%	0	0.0%	0	0.0%	7,515,225
NMJC	3,876,744	59.9%	0	0.0%	2,600,000	40.1%	6,476,744
NMMI	0	0.0%	0	0.0%	0	0.0%	0
Albq T-VI	514,413	4.89%	10,000,000	95.1%	0	0.0%	10,514,413
LVTI	2,701,052	100.00%	0	0.0%	0	0.0	2,701,052
TAVS	912,566	100.00%	0	0.0%	0	0.0%	912,566
2-Yr Subtotal	33,684,226	38.0%	52,370,000	59.1%	2,600,000	2.9%	88,654,226
TOTALS	91,648,065	42.7%	52,370,000	24.4%	70,818,403	33.0%	214,836,468

Source: CHE databases (PJTS.DBF and CP.DBF)

Note: Institutional bond amounts do not include refunding issues.

BEST COPY AVAILABLE

Table 29. State Capital Outlay Appropriations for Higher Education -- By Type, 1985-1990

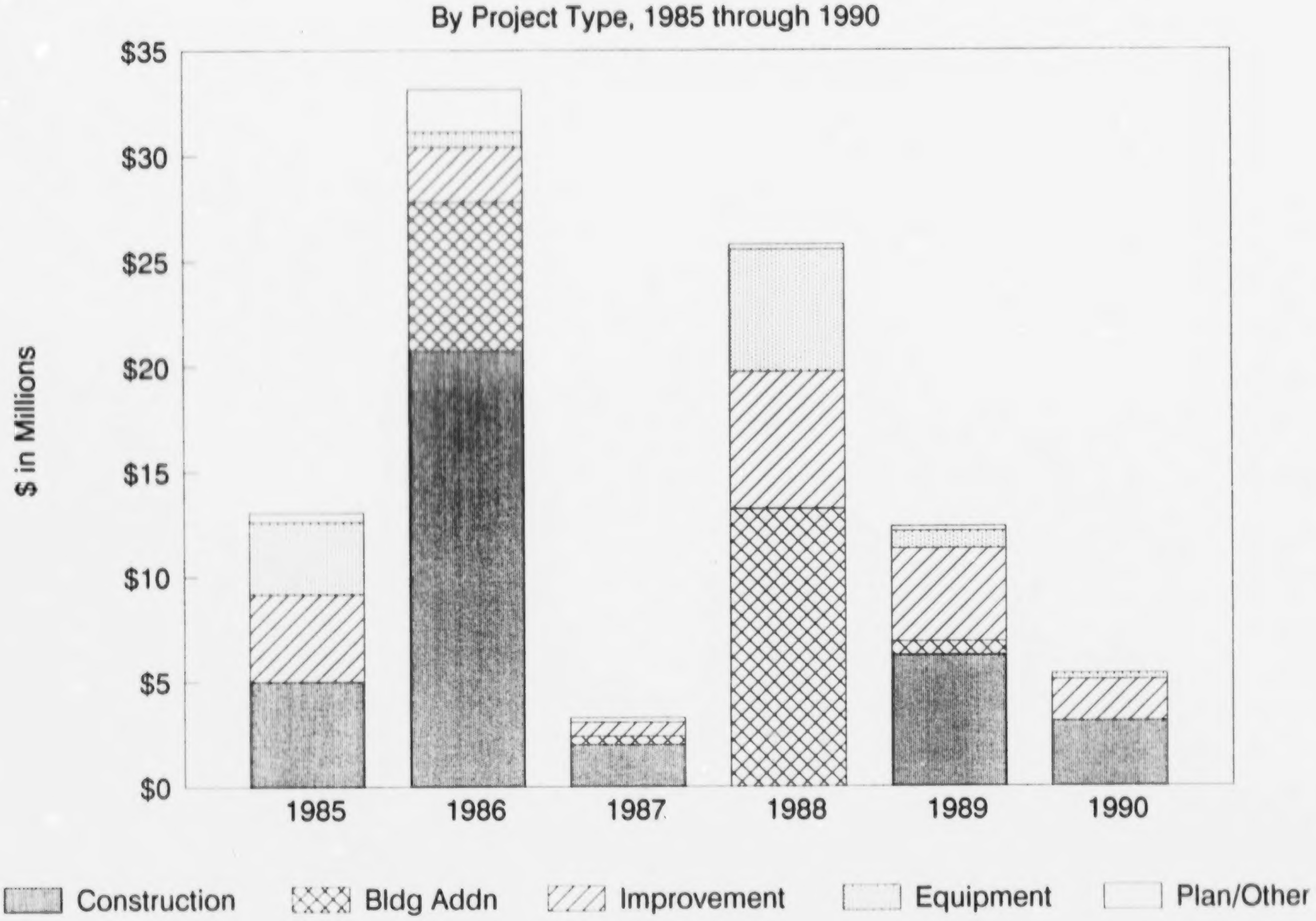
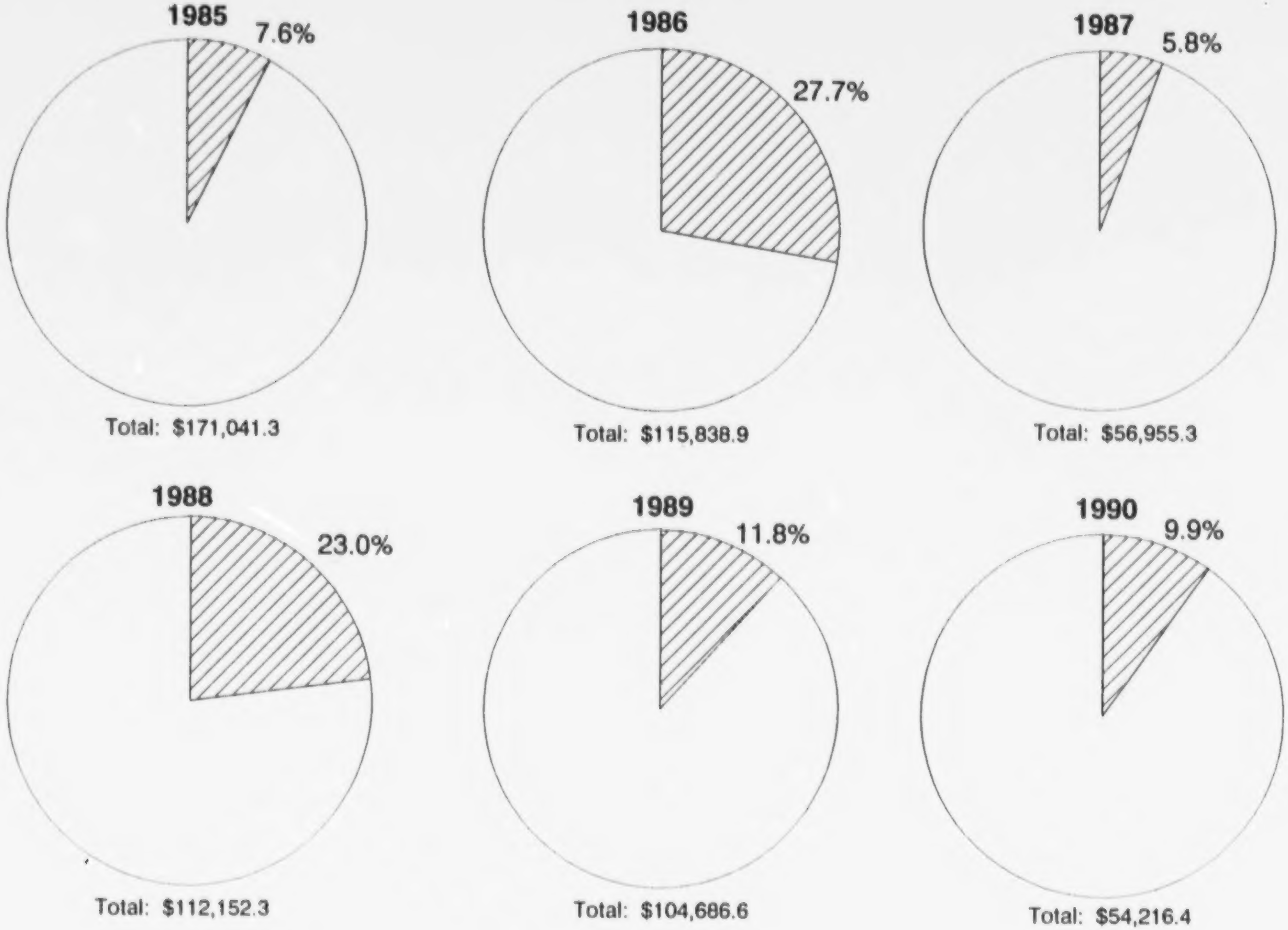


Table 30. State Capital Outlay Appropriations for Higher Education -- By Amount, 1985-1990

	1985	1986	1987	1988	1989	1990	TOTAL	% OF TOTAL
FOUR-YEAR INSTITUTIONS								
UNM	3,940,000	4,500,000	200,000	5,821,737	1,650,000	260,000	16,371,737	18%
NMSU	0	4,691,000	75,000	12,189,635	100,000	0	17,055,635	19%
NMHU	100,000	821,000	0	1,673,214	530,000	270,000	3,394,214	4%
WNMU	360,000	250,000	225,000	188,309	1,200,000	0	2,223,309	2%
ENMU	1,035,000	4,791,000	75,000	283,805	877,000	325,000	7,386,805	8%
NMIMT	545,700	4,447,000	100,000	169,363	5,770,076	500,000	11,532,139	13%
Subtotal	5,980,700	19,500,000	675,000	20,326,063	10,127,076	1,355,000	57,963,839	63%
TWO-YEAR INSTITUTIONS								
UNM-G	0	141,000	0	232,325	40,000	175,000	588,325	1%
UNM-LA	378,200	0	0	44,477	454,000	0	876,677	1%
UNM-V	0	0	0	48,107	0	0	48,107	0%
NMSU-A	50,000	250,000	0	219,682	0	0	519,682	1%
NMSU-C	0	1,200,000	0	53,582	0	0	1,253,582	1%
NMSU-DA	0	0	0	76,309	0	0	76,309	0%
NMSU-G	0	0	0	42,296	200,000	0	242,296	0%
ENMU-R	0	2,376,500	0	76,711	0	0	2,453,211	3%
CCC	0	1,550,000	0	84,298	0	0	1,634,298	2%
NNMCC	230,000	2,750,000	350,000	392,325	392,000	3,400,900	7,515,225	8%
NMJC	0	3,000,000	0	226,744	350,000	300,000	3,876,744	4%
SJC	1,198,500	455,000	400,000	1,120,142	0	0	3,173,642	3%
SFCC	5,000,000	900,000	225,000	723,097	450,000	0	7,298,097	8%
Abq T-VI	0	0	0	414,413	50,000	50,000	514,413	1%
LVTI	200,000	0	1,400,000	876,052	225,000	0	2,701,052	3%
TAVS	0	0	0	758,766	78,800	75,000	912,566	1%
Subtotal	7,056,700	12,622,500	2,375,000	5,389,326	2,239,800	4,000,900	33,684,226	37%
TOTAL	13,037,400	32,122,500	3,050,000	25,715,389	12,366,876	5,355,900	91,648,065	

NOTES: Figures include each institution's share of appropriations made to CHE for library acquisitions (1984), science and engineering equipment (1983 and 1984), and instructional equipment (1988).
Figures do not include appropriations from statewide General Obligation Bonds in 1990; bond issue failed.

Table 31. State Capital Outlay Appropriations for Higher Education -- By Percent, 1985-1990



Total: $171,041.3

Total: $115,838.9

Total: $56,955.3

Total: $112,152.3

Total: $104,686.6

Total: $54,216.4

Table 32. State Funded Financial Assistance

General Fund Appropriations, 1985-86 and 1989-90
(in thousands)

APPROPRIATIONS & AVERAGES

	1985 - 86			1989 - 90			Changes		
	Enroll-ment(1)	Approp	Avg $ Per	Enroll-ment(1)	Approp	Avg $ Per	Enroll-ment(1)	Approp	Avg $ Per
Grants & Scholarships(2)	39,173	$2,409.5	$ 62	46,544	$ 8,531.9	$ 183	18.8%	254.1%	198.0%
Work Awards	39,173	1,484.0	38	46,544	2,832.0	61	18.8%	90.8%	60.6%
TOTALS	39,173	$3,983.5	$ 99	46,544	$11,363.9	$ 244	18.8%	191.9%	145.6%

RECIPIENTS & AVERAGE AWARDS

	1985 - 86			1989 - 90			Changes		
	Recip-ients	Approp	Avg $ Per Recip.	Recip. (Esti-mated)	Approp	Avg $ Per Recip.	Recip-ients	Approp	Avg $ Per Recip
Grants & Scholarships									
Student Incentive Grants	2,367	$ 826.0	$ 349	8,069	$ 4,324.0	$ 536	240.9%	423.5%	53.6%
Student Choice	132	250.0	1,894	279	510.0	1,346	187.1%	104.0%	(28.9%)
Vietnam Veterans'	76	100.0	724	119	100.0	573	56.6%	0.0%	(20.8%)
Athlete Scholarships	0	0.0	N/A	1,000	1,000.0	1,000	N/A	N/A	N/A
Three Percent Scholarships	1,406	1,233.5	877	2,700	1,997.9	740	92.0%	62.0%	(15.7%)
New Mexico Scholars	0	0.0	N/A	241	600.0	1,666	N/A	N/A	N/A
Subtotals	3,981	$2,409.5	$ 594	12,508	$ 8,531.9	$ 682	214.2%	254.1%	14.8%
Work Awards									
State Work Study Awards	1,543	$1,484.0	$ 962	1,450	$ 2,432.0	$1,677	(6.0%)	63.9%	74.4%
Graduate Fellowships	0	0.0	N/A	56	400.0	5,696	N/A	N/A	N/A
Subtotals	1,543	$1,484.0	$ 962	1,506	$ 2,832.0	$1,827	(2.4%)	90.8%	89.9%

Source: Star File

Observations:

- Financial assistance appropriations increased 191.9% between 1985-86 and 1989-90, while student average enrollment, tuition and fees and consumer prices increased 45% over the same period.
- Grant and scholarship program appropriations have increased almost twice the rate of work award programs.
- Number of grant and scholarship recipients increased by 214.2%, work awards declined by 2.4%, while total enrollment increased 18.8%.
- In 1985-86 there were five financial aid programs; in 1989-90 there were eight.
- Average assistance awards increased only for the State Student Incentive Grant (need based) program and State Work Study Programs; average awards declined for Student Choice, Vietnam Veterans' Scholarships and Three Percent Scholarship Programs.

Table 32 (continued)

PERCENT OF AWARDS NEED BASED	1985 - 86			1989 - 90			Changes		
	% Need Based	Approp	Avg $ Per Enroll	% Need Based	Approp	Avg $ Per Enroll	% Need Based	Approp	Avg $ Per Enroll
Grants and Scholarships(2)	61.7%	$1,487.2	$37.96	71.5%	$ 6,100.0	$131.03	9.8%	310.2%	$ 93.07
Work Awards(3)	33.3%	494.7	12.63	42.7%	1,210.7	26.01	9.4%	144.7%	13.38
TOTALS	50.9%	$1,981.9	$50.59	64.3%	$ 7,310.7	$157.04	13.4%	268.9%	$106.45

RESIDENT TUITION REV. AND AID RELATIONSHIPS	Tuition Dollars	Fin'l Aid Dollars	% Aid Tuition	Tuition Dollars	Fin'l Aid Dollars	% Aid Tuition	Tuition Dollars	Fin'l Aid Dollars	% Aid Tuition
	$36,400 (est.)	$3,894.0	10.7%	$44,339	$11,364.0	25.6%	21.8%	191.9%	139.6%

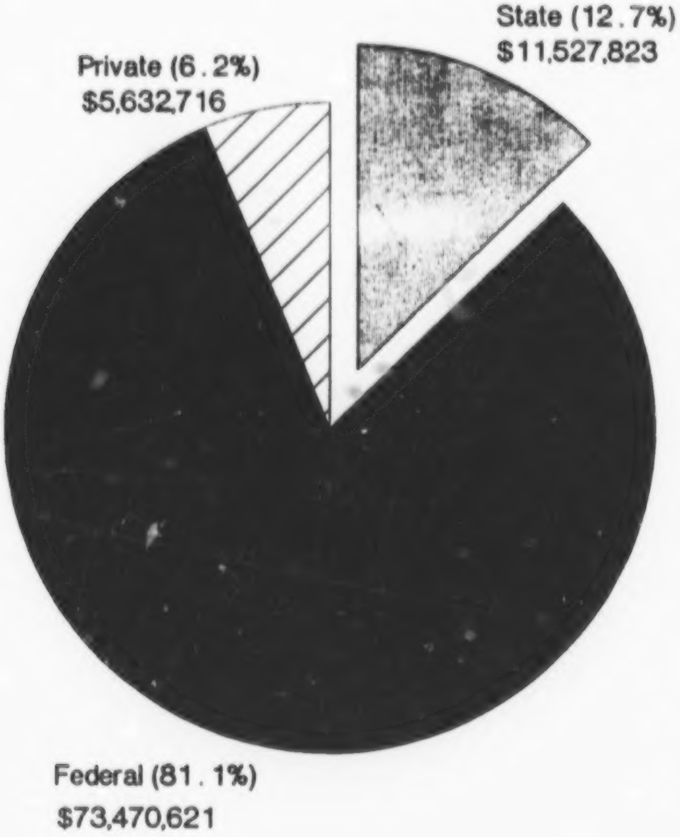
At June 30, 1990		% Recipients Not in College			
LOAN-FOR-SERVICE PROGRAMS	In College/ Internship	Cash (4)	Service (5)	Default (6)	Total
Nursing	111	25.3%	48.0%	26.7%	281
Medical Doctors (M.D.)	43	58.3%	26.4%	15.3%	72
Osteopathic Doctors (D.O.)	24	52.9%	35.3%	11.8%	34

Observations:
- Need based financial aid Grant and Work Award programs have increased from 50.9% in 1985-86 to 64.3% in 1989-90; Grant and Scholarship need based programs have increased from 61.7% to 71.5%; and the need based Work Awards have increased from 33.3% to 42.7%.
- Grant, scholarship and work awards as a percent of resident tuition revenues increased to 25.6% from 10.7% in four years -- New Mexico ranks in the top 10 states in financial assistance to total resident tuition revenue.
- Shortage area commitments in nursing are at all time high, while doctor programs show a slight decrease in shortage area service commitments.

NOTES: (1) Fall semester full-time and part-time (equivalency calculated) enrollments; source: CHE SSIG enrollment reports. (2) Includes State Student Incentive Grants, Student Choice, Vietnam Veterans' Scholarships, Athlete Scholarships, Three Percent Scholarships, and New Mexico Scholar Grants. (3) State Work Study and Graduate Fellowships. (4) Recipient repaid the loan or is making cash payments. (5) In shortage area or service completed. (6) Recipients in litigation, collections, or bankruptcy.

BEST COPY AVAILABLE

Table 33. Total Financial Aid by Source, 1988-1989



Source: 1988-89 System Tracking of Aid Recipients File

3. Enrollments

Statewide, student enrollment in postsecondary institutions during the years 1983-89 increased. But it was far from uniform.

Enrollments at UNM and NMSU have increased modestly during this period, while enrollments at the other four-year universities have generally been flat or have decreased. Most notable has been the growth at the two-year institutions, especially since 1987.

These growth patterns are shown in Tables 34-36, pages 64-66. The data are from institutional registrars' reports for the Fall term of each year. Comparable data from the three vocational-technical institutions, which became subject to CHE oversight in 1988, are not available for this time period. Fall 1989 FTE enrollments for these institutions were: Albuquerque T-VI 5,772, Luna V-TI 625, and Tucumcari AVS 124.

In conjunction with these growth patterns, CHE also looked specifically at how these numbers translated into degrees for students in general, and more particularly for minority students, at both the four- and two-year institutions. Data comparing degrees received for 1985, 1988, and 1990 are shown in Table 37, page 67, for the four-year institutions, and in Table 38, page 68, for the two-year schools.

Table 34. Fall Term Full-time Student Equivalent (FTE) Enrollments, 1983-1989

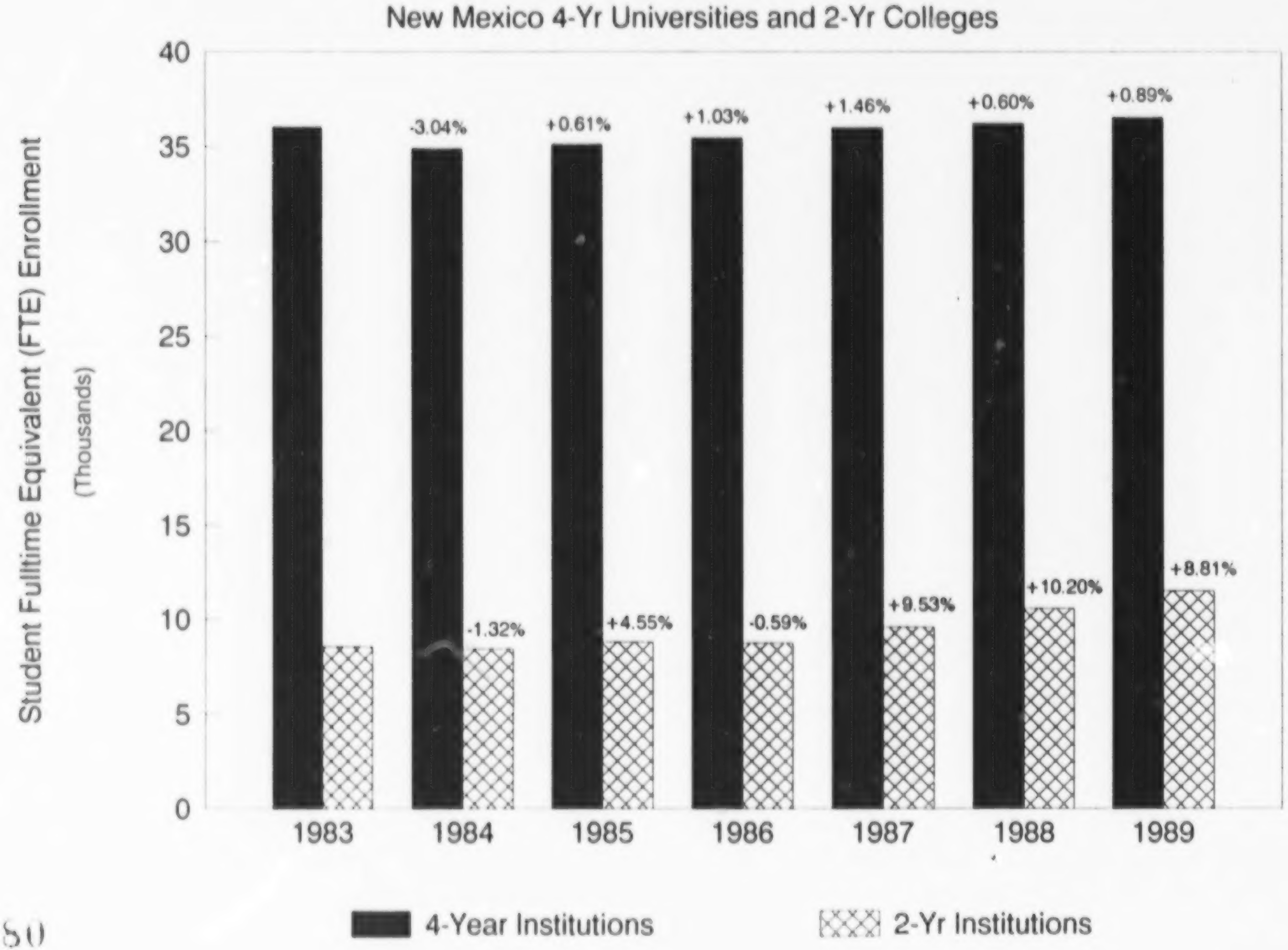
New Mexico's Four-Year Universities and Two-Year Colleges

INSTITUTION	1983	1984		1985		1986		1987		1988		1989	
	FTE	FTE	% Change	FTE	% Change	FTE	% Change	FTE	% Change	FTE	% Change	FTE	% Change
FOUR-YEAR INSTITUTIONS													
UNM Main Campus	17,115	16,659	-2.66%	17,083	2.55%	16,975	-0.63%	17,290	1.86%	17,343	0.31%	17,664	1.85%
NMSU	10,924	10,747	-1.62%	10,710	-0.34%	11,309	5.59%	11,561	2.23%	11,621	0.52%	11,565	-0.48%
NMHU	2,026	1,810	-10.66%	1,803	-0.39%	1,823	1.11%	1,739	-4.61%	1,798	3.39%	1,869	3.95%
WNMU	1,406	1,424	1.28%	1,295	-9.06%	1,235	-4.63%	1,201	-2.75%	1,273	6.00%	1,414	11.08%
ENMU	3,336	3,192	-4.32%	3,189	-0.09%	3,123	-2.07%	3,192	2.21%	3,202	0.31%	3,097	-3.28%
NMIMT	1,196	1,077	-9.95%	1,041	-3.34%	1,018	-2.21%	1,018	0.00%	979	-3.83%	930	-5.01%
Subtotal	36,003	34,909	-3.04%	35,121	0.61%	35,483	1.03%	36,001	1.46%	36,216	0.60%	36,539	0.89%
TWO-YEAR INSTITUTIONS													
UNM Gallup	637	684	7.38%	685	0.15%	648	-5.40%	680	4.94%	825	21.32%	889	7.76%
UNM Los Alamos	284	345	21.48%	369	6.96%	356	-3.52%	345	-3.09%	327	-5.22%	356	8.87%
UNM Valencia	245	255	4.08%	288	12.94%	345	19.79%	412	19.42%	510	23.79%	558	9.41%
NMSU Alamogordo	732	721	-1.50%	796	10.40%	761	-4.40%	843	10.78%	850	0.83%	918	8.00%
NMSU Carlsbad	465	469	0.86%	494	5.33%	493	-0.20%	558	13.18%	545	-2.33%	554	1.65%
NMSU Dona Ana	466	432	-7.30%	417	-3.47%	408	-2.16%	609	49.26%	794	30.38%	1,133	42.70%
NMSU Grants	269	285	5.95%	276	-3.16%	244	-11.59%	237	-2.87%	280	18.14%	292	4.29%
ENMU Roswell	901	766	-14.98%	840	9.66%	817	-2.74%	800	-2.08%	924	15.50%	993	7.47%
Clovis CC	870	870	0.00%	926	6.44%	940	1.51%	1,091	16.06%	1,137	4.22%	1,174	3.25%
NM Jr College	1,251	1,206	-3.60%	1,206	0.00%	1,173	-2.74%	1,169	-0.34%	1,173	0.34%	1,244	6.05%
Northern NM CC	816	650	-20.34%	627	-3.54%	645	2.87%	759	17.67%	874	15.15%	862	-1.37%
San Juan College	1,251	1,190	-4.88%	1,288	8.24%	1,265	-1.79%	1,378	8.93%	1,449	5.15%	1,581	9.11%
Santa Fe CC	342	543	58.77%	587	8.10%	652	11.07%	700	7.36%	870	24.29%	934	7.36%
Subtotal	8,529	8,416	-1.32%	8,799	4.55%	8,747	-0.59%	9,581	9.53%	10,558	10.20%	11,488	8.81%
TOTAL	44,532	43,325	-2.71%	43,920	1.37%	44,230	0.71%	45,582	3.06%	46,774	2.62%	48,027	2.68%

Source: Institutional Registrar's Reports, 1985 through 1989.

NOTE: Figures exclude off-campus and UNM Medical School enrollments.

Table 35. 1983-1989 Fall Term FTE Enrollment Totals



BEST COPY AVAILABLE

Table 36. Fall Term Enrollments, Percentage Change from 1988-1989*

Institution	Fall 1988	Fall 1989	Percent Change
Four-Year			
UNM	23,862	24,235	1.56
NMSU	14,284	14,300	0.11
NMHU	2,027	2,234	10.21
WNMU	1,656	1,763	6.46
ENMU	3,689	3,585	-2.82
NMIMT	1,222	1,127	-7.77
Subtotal	46,740	47,244	1.08
Public Two-Year			
UNM-Gallup	1,607	1,598	-0.56
UNM-Los Alamos	915	1,010	10.38
UNM-Valencia	1,060	1,119	5.57
NMSU-Alamogordo	1,680	1,815	8.04
NMSU-Carlsbad	964	1,024	6.22
NMSU-Dona Ana	1,623	2,374	46.27
NMSU-Grants	485	514	5.98
ENMU-Clovis	2,809	2,789	-0.71
ENMU-Roswell	1,539	1,842	19.69
NNMCC	1,256	1,308	4.14
NMMI	449	417	-7.13
NMJC	2,523	2,345	-6.69
SJC	2,855	3,068	7.46
SFCC	2,351	2,935	24.84
Subtotal	22,106	24,158	9.28
Vocational Institutions			
Albuquerque T-VI	N/A	10,933	N/A
Luna VTI	N/A	953	N/A
Tucumcari AVS**	N/A	154	N/A
Subtotal	N/A	12,040	N/A
TOTAL		83,442	

Source: Institutional enrollment reports.

* Figures exclude off-campus and UNM Medical School enrollments.

** Enrollment figure for TAVS is estimated.

Table 37. Baccalaureate & Associate Degrees Awarded by New Mexico Ethnic Population, 1985, 1988, 1990

All Four-Year Institutions

Fiscal Year & Degree	Total Number of Degrees	Anglo		Black		Hispanic		Native American		Asian		Other	
		#	%	#	%	#	%	#	%	#	%	#	%
1985 Bachelor	4328	3070	71%	68	2%	984	23%	91	2%	49	1%	66	2%
1988 Bachelor	4437	3080	69%	77	2%	1000	23%	96	2%	53	1%	131	3%
1990 Bachelor	4737	3282	69%	81	2%	1062	22%	117	2%	79	2%	116	2%
1985 Assoc.	657	386	59%	8	1%	198	30%	57	9%	5	1%	3	.5%
1988 Assoc.	419	249	59%	10	2%	132	32%	19	5%	6	1%	3	1%
1990 Assoc.	343	227	66%	4	1%	94	27%	9	3%	2	1%	7	2%

Table 38. Associate Degrees Awarded by New Mexico Ethnic Population, 1985, 1988, 1990

All Two-Year Institutions

Fiscal Year & Degree	Total Number of Degrees	Anglo		Black		Hispanic		Native American		Asian		Other	
		#	%	#	%	#	%	#	%	#	%	#	%
1985 Assoc.	853	583	68%	10	1%	166	20%	53	6%	2	.2%	39	5%
1988 Assoc.	1126	736	65%	19	2%	234	21%	120	11%	8	1%	9	1%
1990 Assoc.	1458	928	64%	30	2%	327	22%	122	8%	7	1%	44	3%

H. REVIEW AND COMMENT ON INSTITUTIONAL PLANS

Introduction

Postsecondary education in New Mexico has reached a critical crossroad. Rapid changes throughout the world are placing a great challenge on all levels of education. The challenge is not only how to respond to the world of the future, but also to respond to increasing criticism that education has lost its compass in the recent past. Responding to these challenges will require substantial change if postsecondary education is to continue to serve the state's needs.

But responding will be particularly difficult because it must occur in an era of limited resources. Public funding will not increase substantially in the near term. There will be greater demands within the public sphere for all kinds of services, some of which will become increasingly essential, others that will simply become more desired, but all of which will compete with education for limited resources. It is within this context of exciting but tenuous times that the institutional plans were developed.

In reviewing the plans, some remarkably consistent common themes emerged:

Enrollment Management. What emerged here was more than self-serving. The thrust of the plans appears to be a genuine outreach to previously underserved, but able, citizens.

Student Assessment, Placement, and Supporting Services. Part of the effort is associated with outreach for enrollment management, and part of it is designed for greater efficiency--helping students find the right niche the first time around.

Quality Improvement. These efforts are driven in part by national studies that have been critical of higher education's lack of accountability. But they are also a logical next step in planning efforts. Knowing what one wants to achieve allows the possibility of assessing whether those goals are being attained.

Economic Development. Postsecondary education is key to New Mexico's economic vitality. Our investment in human resources and research, both applied and basic, has begun to pay dividends. Postsecondary education has an important role during periods of economic transition, and this is reflected in the plans. Society is in transition to the information age, and the education industry must accommodate to this environment the same as any other industry. Many individuals are also in transition from one career or job to another, and postsecondary education must respond to their needs. The state's economy is in transition, and there is an important role here for postsecondary education as well.

Strategic Planning and Mission Differentiation. The institutions are beginning to address the issue of efficiently providing services in an era of limits. Planning efforts are clearly linked to the Commission's 1988 strategic plan. The involvement of the state's colleges and universities in planning contributes to meeting the strategic goals of higher education in the state. The Institutional Planning Guidelines are tied to goals and priorities for higher education in New Mexico. As such, they focus on environmental analysis and five-year plans for strengthening and developing institutional mission and role, programs, enrollment management, assessment, and human, physical, and financial resources.

1. Institutional Histories, Missions, Roles, and Scopes

In its request for five-year institutional plans, the Commission asked for a statement about the history, mission, role, and scope of each institution as background for the additional elements of the plans. The resulting statements reflect the great diversity of New Mexico's public postsecondary institutions. The following paragraphs extract a few highlights about institutional histories and missions.

History. Establishment and development of postsecondary campuses is spread across the past century. UNM, NMSU, and NMIMT were all confirmed as state institutions by the Territorial Legislature in 1889, NMSU having been founded by local citizens as Las Cruces College a year earlier. The most recently established institutions are TAVS, founded in 1979; UNM-Valencia, 1981; and SFCC, 1983. Despite frequently expressed concerns about New Mexico's relative abundance of public postsecondary campuses, the number of institutions continues to grow.

Mission. CHE's long-term strategic plan for the state recommends that each institution clearly define its mission, both as a separate institution and as part of a statewide system. The institutional plans confirm that the campuses are at various points in the process of definition. Definitions generally are broadly stated and stress traditional, multiple obligations to teach, promote scholarly activity, and serve a community that extends beyond the boundaries of the campus. Less evident are statements of distinction from other institutions or statements about collaboration with other campuses.

A. Research Universities. UNM's mission, role, and scope statements address each of the dimensions anticipated by the CHE for research institutions: increasing institutional focus upon upper division and graduate programs, while continuing to promote high quality undergraduate instruction; managing institutional growth through careful selection of programs and students, while continuing to promote diversity in the student body; and aiding economic development of the state through transfer of technologies to the private sector. NMIMT's mission statement emphasizes education and research concentrated upon science and technology. NMSU statement is being written this year.

B. Comprehensive, Regional Universities. The three regional institutions, ENMU, NMHU, and WNMU, express missions that emphasize access for students with diverse backgrounds, quality undergraduate instruction, and a limited number of masters-level graduate programs. Although their missions overlap, some points of distinction also are clear. For example, ENMU highlights its priority for quality liberal arts teaching; NMHU stresses its strength as a center of Spanish language and culture; and WNMU's mission includes a role in vocational education.

C. Two-Year Institutions. The mission, role, and scope statements of New Mexico's 17 two-year campuses generally emphasize their role in helping all New Mexicans pursue some form of remedial and/or postsecondary education. The statements often highlight the role of these institutions in smoothing students' transitions between high school and the two-year institution, and between lower division instruction and a four-year institution. Missions of the two-year institutions differ in the balance of their emphasis upon vocational and academic programs.

The independent community colleges express complex missions that span provision of developmental education, vocational training, lower division instruction for transfer to another institution, personal development courses, and extensive community service programs. Most university branches have similar missions, sometimes limited by small size and sometimes augmented by roles such as providing a base for upper division or graduate instruction offered by still another institution.

Albuquerque T-VI is in a period of transition toward granting associate degrees and its mission statement reflects that transition.

In general, a clear, well-planned statement about the history, mission, role, and scope of an institution determines its fundamental purposes and guiding principles. Specific decision issues faced include:

- The major constituencies of the organization and the nature of the obligation to each;

- The relative emphasis to be placed on 1) teaching, research, and service; 2) graduate versus undergraduate instruction; 3) career-oriented programs versus the liberal arts; and 4) experimental versus traditional modes of instruction;
- The institution's role within the local community;
- The general range of disciplines to be offered; and
- Decisions that represent the thrusts and priorities of the institution, and directions for development of the institution as a whole.

Those institutions that plan carefully and conscientiously what their mission entails will facilitate determination of their overall inventory of academic programs to be offered, and the relative priorities placed on those programs. The mission statement, however, is only a first step toward making those determinations, as viable decisions on offerings and priorities must be made within the context of a long-range development framework.

POLICY IMPLICATIONS. There is considerable diversity in format and detail of the mission statements of the state's postsecondary institutions. Although the institutions share certain general goals about education, they also are notably different, consistent with distinctions made in the CHE's statewide strategic plan. In some cases, mission statements are under revision or are recognized as temporary, emphasizing that the statements are necessarily dynamic--changing in response to local and statewide events, societal needs, and new thinking about educational practices. Overall, the quality of the mission statements reflects progress in institutional planning that is substantially beyond the state of affairs in 1984 when an independent consultant assessed institutional missions throughout the state.

An appropriate position for CHE at this point is to encourage continued refinement of institutional missions and to press institutions to specify clear ties between their programs and their stated missions.

2. External and Institutional Environments

The 1990 institutional plans vary greatly in their analyses of operational environments. CHE's guidelines for the plans suggested consideration of specific dimensions of analysis such as demographic changes in an institution's recruitment area, economic conditions, public education, and government regulations; analysis of competition for students, faculty, and external resources; identification of barriers to achieving institutional objectives; and unique circumstances or opportunities for growth at each institution. Most of the plans address only some of these dimensions. Because of differences among the plans, they provide little basis for inter-institutional comparisons, but they do provide some indication of the extent to which New Mexico institutions consider the various environmental elements important to their future successes.

In most instances, little distinction was made between external environment and institutional environment. Therefore, this summary reflects a composite of both subsections.

Major Environmental Issues Addressed in the Plans. The points most often discussed in the environmental analyses are rates of growth of potential student pools, demographic changes in the pools, and the state's economic condition. Most institutions agree with current projections of slower population growth in the 1990s than in the 1980s (on the order of 1.5% a year). For three institutions, greater change is projected as a result of faster population growth: NMSU-Dona Ana, where immigration is expected to exceed 1.5% a year, and ENMU and ENMU-Clovis, both of which will be affected by expansion of Cannon Air Force Base.

Five other institutions--Albuquerque T-VI, SJC, SFCC, UNM-Los Alamos, and UNM-Valencia--predict substantial enrollment increases resulting from a combination of population growth and program expansion.

Decreasing populations are projected by NMSU-Grants and TAVS, which both note needs to maintain their markets through creative programming.

Most institutions expect increasing representation of Hispanic and Native American students in the populations from which they draw their students. Several of the plans acknowledge that these groups traditionally have shown the lowest postsecondary participation rates and performance, and, therefore, the institutions will require special recruitment and student support services in order to maintain or expand enrollments and to achieve acceptable completion rates of such students.

Several institutional plans characterize the New Mexico economy as sluggish and in need of diversification in order to reduce reliance upon government funding and to increase tax yields. Perhaps because of the uncertain economic future, many of the plans fail to relate economic changes to specific actions that might be undertaken by the institution. By far the most frequently noted implication of the state's economy is the continuing shortage of funding for salaries and capital outlay.

Competition. Perhaps reflecting their tact more than their recruitment programs, most institutions do not make a straightforward definition of their sources of students. Several indicate competition is primarily for the most academically capable student, for example, the top 10% of high school classes. WNMU acknowledges competition with the other four-year state institutions; NMJC recognizes the rapid growth of Albuquerque T-VI; and UNM-Valencia lists the UNM main campus and Albuquerque T-VI as its main competitors.

NNMCC, UNM-Los Alamos, and SJC each cite the potential for competition from surrounding campuses if recruitment areas are not respected or cooperative agreements are not established.

NMIMT lists 14 institutions in other states with which it competes for students. Institutions near our borders--ENMU-Portales, NMSU-Alamogordo, and SJC, for example--cite neighboring states' institutions as competitors.

Albuquerque T-VI, WNMU, and NMSU-Alamogordo list proprietary schools as major competitors. Some institutions near military bases note competition from out-of-state institutions providing programs on the bases.

Barriers to Achieving Institutional Objectives. Several barriers were identified in the institutional plans, although again the differences among the plans are more notable than their similarities. At least nine of the institutions say insufficient funding to provide competitive salaries is a major barrier to achieving their missions. These institutions indicate the market in which they must compete for faculty is nationwide, and that the need to attract more minority faculty further heightens the barrier.

Another barrier cited in the plans is lack of funding for off-campus and other forms of distance instruction. WNMU, ENMU-Clovis, and UNM-Los Alamos are examples of campuses needing additional funding to reach students distant from the campus or to bring instruction from other sites. LVTI cites establishment of its satellite centers as an example of meeting a need to move instruction to the people, rather than always moving people to the instruction.

Several institutions say carrying out their missions is frustrated by the number of students poorly prepared by public schools for postsecondary education, increasing the amount of remedial instruction that must be provided. However, elsewhere in their plans, some of these same institutions identify remedial instruction as a major component of their mission.

UNM, Albuquerque T-VI, UNM-Grants, and NMJC identify increasing federal and state requirements as barriers. Albuquerque T-VI, ENMU-Clovis, UNM-Gallup, and UNM-Valencia recognize the lack of child care as a barrier for their potential students.

Three campuses are physically barred from expansion by lack of space: Albuquerque T-VI, UNM-Los Alamos, and NMSU-Dona Ana. These institutions identify new or additional campuses as the likely resolution.

A few barriers are unique: Albuquerque T-VI identifies the lack of sufficient public transportation as a barrier to its target population; NNMCC cites failure of the state to recognize its position as a constitutional, multi-campus institution.

> **POLICY IMPLICATIONS**. A frequent weakness in this section of the plans is failure to define the educational implications of changing environmental conditions, or to specify the institutional actions needed to accommodate the changes. This would be a profitable focus for the second or third year of planning; because several institutions are hesitant to act upon demographic data until they are confirmed by the 1990 Census, however, the third year (1992) may be the better choice.

3. Programs Described in 1990 Institutional Plans

The Commission asked the institutions to include in their five-year plans descriptions of various characteristics of their educational programs, including the balance of graduate to undergraduate enrollments; the needs of their service areas; institutional practices for reviewing programs; distinctive and exemplary programs, including those in technology; linkages with other institutions; and plans for program changes.

The responses were highly varied, reflecting inherent and important differences among the institutions, but perhaps also reflecting uncertainty about the information being requested and the appropriate level of detail desired. A few program questions were selected for review across plans.

Undergraduate and Graduate Enrollments. Four-year institutions were asked to indicate the relative size of their undergraduate and graduate enrollments, in terms of student credit hours, and any goals for changing the balance of these enrollments. Their responses are summarized in Table 39.

Table 39. Percent of Total Graduate Student Credit Hours

	UNM	NMSU	NMIMT	NMHU	ENMU	WNMU
1988-89	15%	7%	13%	14%	8%	12%
Goal	increase to 20%	increase	appropriate: no change	appropriate: no change	appropriate: no change	increase to 20%

On the basis of either the student credit hour measure or the institution's goal, there appears to be little correspondence between the position of an institution within CHE's framework for a statewide system and an institution's actual dedication to graduate instruction. Based solely upon these measures, regional institutions appear to be as involved in graduate instruction as are the research universities, albeit their numbers of students may be lower, their programs restricted to the masters level, and the costs of their programs less than those at research universities.

Service Area Needs. Institutions were asked to identify new programs needed in their service areas and potential funding sources for such programs. Several institutions interpreted this request as an opportunity to list current or planned community service programs. An example is NMHU's description of their Southwest Cultural Center, Science Education Research Center, and several other programs supportive of various community needs. UNM and NMIMT highlighted their development of research parks as means of supporting economic development.

Other institutions interpreted the request more broadly, covering all areas of institutional programming. Here again, however, responses were more often in the form of a report of accomplishments than a summary of strategic planning. Generally, the institutions' responses were brief, listing program areas being explored. Several two-year institutions, such as SJC and NNMCC, presented more substantial lists. NMSU-Dona Ana listed several needed programs tied to optional funding sources. NMSU-Alamogordo summarized the results of a 1988 service area assessment of vocational-technical education needs.

One frequently noted need for program expansion is developmental studies, both for regularly enrolled students and for members of the community needing adult basic education.

> **POLICY IMPLICATION**. From a state policy standpoint, a fundamental question is whether an institution has a systematic method of identifying and evaluating service area needs, and for achieving an institutional decision about meeting such needs. CHE's guidelines did not ask for such information and rarely was there any hint of such a system in the institutions' responses. Future planning assistance by CHE might profitably focus upon helping institutions to develop these systems.

Program Review and Development. Institutional descriptions of the procedure for initiating, reviewing, strengthening, and eliminating programs also were generally terse. Several indicated their programs were reviewed annually regarding enrollment, and periodically (usually on a three- to five-year cycle) regarding availability of resources, employment potential for program graduates, and other factors. Albuquerque T-VI noted its use of outside occupational advisory committees in program reviews.

To some extent, information provided in this part of the plans corroborates the lack of systems for needs assessment and matching of programs to needs. Program evaluation still appears to be a topic on which institutions could benefit from technical assistance.

Distinctive Programs and Centers of Excellence. Perhaps the most general statement to be made about designation of centers and programs that have achieved national or regional recognition is that most New Mexico institutions have no formal process for recording or confirming such designations. There are exceptions to this generalization. For example, Albuquerque T-VI lists six institutional criteria, such as the program being unique in New Mexico, unique in equipment or curriculum, designated on the basis of achievements of graduates, or designated by an industrial group. LVTI and NMSU-Dona Ana also summarize processes for arriving at their designations.

Universities. The plans of four-year institutions were likely to include lists of interdisciplinary centers and instructional programs that had received designations of distinction by some external authority. UNM's plan, for example, highlights the New Mexico Engineering Research Institute (NMERI), but also lists several additional centers, graduate programs, and undergraduate programs. UNM also notes that a faculty research policy is under development to formalize processes for evaluating and confirming designations of distinction for centers of excellence.

NMIMT lists its Center for Explosives Technology Research, the Atmospheric Research Group, and its instructional program in hydrology. NMHU designates its Science and Technology Alliance, which addresses national problems of student shortages in science and engineering, particularly among women and minorities. ENMU features its new Center for Teaching Excellence, also listing several instructional areas of high repute.

Two-Year Campuses. Plans of several of the two-year institutions list technical training programs that have achieved designations of excellence. Albuquerque T-VI's plan lists 10 programs, such as culinary arts, respiratory therapy, pulse power technology, and welding, that meet their criteria of excellence. LVTI emphasizes its Minority Honors Training and Industrial Assistance Program, linking them with national laboratories and industrial employers. UNM-Los Alamos designates its programs for women in science and for minority students in science, technology, and business. NMSU-Carlsbad lists its Radioactive and Hazardous Materials Technology Program. NMSU-Dona Ana identifies seven programs, including amnesty training, adult basic education, and water technology. SJC underscores its programs in early childhood education, automotive technology, and drafting. Six of the two-year campuses either are silent on this topic or indicate that they do not make such designations.

POLICY IMPLICATION. If CHE wishes to use designations of distinction as a vehicle for encouraging excellence, concentrating limited state resources, eliminating unneeded duplication, or promoting inter-campus agreements, it may first be necessary to help institutions develop consistent criteria for defining and validating excellence. Although most campuses already designate outstanding instructional or research programs, it appears that the criteria and processes for making these designations are poorly defined and inconsistent.

This may be an issue on which institutional representatives could profitably work toward more uniform definitions and procedures, assuming there is some substantial reason for inter-institutional consistency on this matter.

Inter-Institutional Linkages. The Commission's planning guidelines asked institutions to indicate the extent to which they could participate in facilitating inter-institutional activities, and their plans for such activities.

In response, most institutions listed examples of inter-institutional agreements in which they currently participate. The lists vary widely, emphasizing both instructional and research linkages for UNM, NMSU, and NMIMT, and primarily instructional organizations for other institutions. Branch campuses were the least likely to include a response on this topic, indicating their primary reliance upon the parent institution in such matters.

Among the most frequently cited areas in which cooperative arrangements should be strengthened are distance education, particularly instructional television; waste management research and education; development of academic libraries; and rural education.

Only a few of the plans include statements of a policy nature that clearly indicate institutional priorities or plans for developing future linkages and consortia. In contrast to the other institutions, SJC lists not only their current linkages but also expresses interest in developing additional ones, with specific examples given.

New Academic Programs. Information in the 1990 institutional plans concerning future academic programs is too uneven to guide statewide preparation for evaluating requests or support for these programs. To cite several examples, UNM lists six bachelors level programs "in the pipeline" and several dozen graduate programs under consideration, but cautions that its lists are at best conjectural because of the considerable internal review that must be done before an undergraduate program is implemented or a graduate program is presented for state approval. WNMU's descriptions of possible new programs are admirable for citing specific needs for the programs, but some are presented in terms of possible realignment of existing programs, some as new majors; however, no timetables are anticipated because of the need for review by the new administration. NMSU's plan will not address this question until the 1991 revision.

Furthermore, related program changes do not always occur in the same manner from one institution to another. For example, in the area of waste management, UNM anticipates a new BS program within its engineering school and NMSU-Carlsbad anticipates a new associate degree program, but NMHU is implementing a waste management curriculum by modifying an existing bachelors-level environmental science program.

> **POLICY IMPLICATION**. For purposes of long-term state planning and preparation for institutional requests regarding program changes, reliance upon institutional plans probably will be of limited utility, at least in their current form. It might be profitable to maintain a data base of program changes under consideration by institutions, but it would be necessary to establish guidelines about when in the developmental process (and how) information would be entered into the data base.

4. Distance Learning: An Overview

The summaries of activities and plans submitted by each postsecondary institution indicate a strong interest on the part of institutions to meet the needs expressed by private and public sectors for distance learning. The extensive activity in instructional television by ENMU since 1979, and, since 1985 by UNM, NMSU, NMIMT and LVTI, indicates there is clearly a growing ability to serve the state's telecommunication needs.

ITV originating sites include: UNM, NMSU, NMIMT, ENMU, LVTI, and UNM-Los Alamos. All of the sites use a hybrid delivery system which includes some components of the following technologies: ITFS (instructional television fixed service), microwave, fiber, satellite (K and CU bands), fiber optics, compressed video, and cable. The introduction of a complete fiber optic system by U.S. West, ENMR, Contel, and General Tel by 1992 will interconnect approximately 90% of the state. A CHE ITV committee is currently developing an ITV policy that will address the management of a statewide ITV network, service areas, and funding formula for distance learning.

Several institutions addressed the need for a statewide distance education policy delineating service areas for each institution, assigned roles in providing programs and services, guidelines for the development of infrastructure, and definitions of unrestricted and restricted or partially restricted student credit hour eligibility for formula reporting. Some institutions commented that CHE Rule 220 regarding off-campus productivity caps needs to be re-evaluated. Funding to support off-campus programs at an adequate level is a continuing challenge and oftentimes a dilemma for institutions. There are limitations on the number and types of programs that can be offered off-campus.

The 1988 needs assessment of the New Mexico ITV Task Group found the most mentioned need from the private sector was trades oriented. Their report said, "Business and industry require basic skills courses in mathematics and communications, along with skills training in areas of assembly, manufacturing, and electronics...(and) management and supervisory skills courses are also an important need." Since 80% of jobs in the state are trades oriented, this needs assessment appears accurate. Public schools, and professional, business, and government employees require higher level development programs. Based on this information there seems to be a clear need for both two- and four-year trades oriented telecommunicated and off-campus coursework.

The increased use of distance education coursework raises the issue of articulation between delivery sites. As course matrices are developed for the content areas, distance education coursework should be considered as another area of articulation between institutions and programs.

Some institutions also commented that development of creative ITV coursework and/or curricula should become a part of tenure track activities for faculty as an incentive to insure quality instruction. In-service training on interactive methods using effective questioning techniques that elicit higher order thinking skills should be incorporated into all distance education activities. NMSU has developed an excellent ITV training program that has gained national and international recognition, and it should be considered for use in New Mexico ITV programs.

5. Cooperative Education

In their reports to the Commission, the four-year institutions indicate they are either already aggressively involved in cooperative education programs, or that they are developing such plans. The sole exception is ENMU which has less than 10 students involved in co-op programs and states it has no plans to significantly invest in such programs in the near future. NMHU notes that 98% of its students who are involved in co-op education programs eventually gain jobs with their co-op employers.

Co-op programs at the two-year institutions are either minimal or non-existent, although many of the trades programs may have co-op type arrangements, often under other names, with area businesses.

At the three research universities the co-op efforts thus far have been concentrated, perhaps not surprisingly, in engineering and the sciences, while at NMHU and WNMU the concentrations have been in business and the social sciences. All of the institutions involved in co-op programs are seeking means to expand their programs so that more students, in more fields, can become involved.

Table 40, page 82, lists the co-operative education programs at the various institutions, and Table 41, page 84, shows the numbers of students involved in the various programs offered.

> **POLICY IMPLICATION**. For the most part the plans do not indicate long-term follow-up efforts showing the successes or failures of students involved in cooperative education programs; this might be a fertile area for more research. Additional data should also be obtained on the costs of the various programs versus the cost savings to the institutions in relieving them of the need to provide this type of hands-on educational training. Additional data should also be sought from the employers' points of view on the value of the programs, including their hiring of students after the completion of co-op programs.

Table 40. Cooperative Education – Types of Programs Offered

Institution	Program Description
NMSU	The program offers students an opportunity to gain pre-professional experience in their career fields through work assignments in business, industry, education, government, and the non-profit sector. The program is under centralized management. Job development is a cooperative task carried out by faculty, administrators, and program staff. Forms of co-op: Alternating and Parallel.
UNM	The program is centrally administered, providing opportunities for students in three colleges: Engineering, Arts and Sciences, and the Anderson Schools of Management. Administratively, the director reports to the Dean of the College of Engineering and the director's office is funded through the Vice President for Academic Affairs. Form of co-op: Alternating.
WNMU	The centralized program offers students an opportunity to gain pre-professional experience in their career fields through work assignments in business, industry, education, government, and the non-profit sector. The program is under the direction of the Vice President for Academic Affairs. WNMU received a Title VIII federal grant in 1985 which established the Cooperative Education Program. Forms of co-op: Alternating and Parallel.
NMHU	Cooperative Education is an optional program designed to provide students with an opportunity to gain work experience. Some 98% of the co-op students are offered a permanent job with their co-op employer. Form of co-op: Alternating.
NMIMT	The off-campus program allows students to alternate periods of full-time semiprofessional employment in their chosen field with periods of full-time academic study. Job development is carried out by a) a student indicating a desire and then a position is found, or b) an employer advertises specifically for a student. Form of co-op: Alternating.
ENMU	Currently, ENMU has less than 10 co-op education placements. Co-op job placements are sought and coordinated by the Placement Office. Several years ago ENMU received a Title VIII grant to develop cooperative education for the institution, however, the process did no significantly increase levels of success.
NMSU-A	Will submit information with the 1991 report.
NMSU-C	A co-op pilot education program with the Waste Isolation Pilot Program is scheduled to begin in Summer 1990.
NMSU-DABCC	Every vocational program offers some type of cooperative education opportunity. The experiential training is not always named cooperative education; it may be an internship, a clinical experience, or on-the-job training. The student is not always paid. Within DABCC's mission to provide students with vocation/technical education, each occupational program

Table 40 (continued)

	develops work experience opportunities for its students. Reformulation of the program is under consideration and will be reported in the 1991 Institution Plan.
NMSU-G	Does not provide a fully operational program and it is unlikely that such a program will be implemented within the next five years. NMSU-Grants does offer internships is some occupational areas on a demand basis. In these programs students spend from two to six hours a week working in a business environment related to their studies.
UNM-V	Currently there is no plan. UNM-V does believe, however, that such a learning opportunity is highly desirable and will be making efforts to incorporate cooperative education arrangements into those occupational education programs being considered for implementation.
UNM-LA	At the present time there is no formal program. The Women-in-Science Reentry Program and the Native Americans and Hispanics Internship programs both include a paid internship component where students acquire on-the-job work experience at Los Alamos National Laboratory.
UNM-G	In the vocational/technical areas and programs UNM-G has specific courses entitled "co-op in." Students may earn credit when they are placed on the job in Auto, Diesel, Welding, and Construction Trades. These programs usually only have 1-4 students each semester. They are supervised by a full-time faculty member in cooperation with the place of business.
ENMU-R	Currently, two options are available to students enrolled in the one-year Petroleum Technology certificate program. The Paralegal Studies program offers a course as a co-op education experience. Also, the Developmentally Disabled program has a co-op course. Form of co-op: Parallel.
NNMCC	Currently, there are no programs with a co-op education component, however, there ate plans to re-establish a strong component in the Business Department to serve students primarily in Marketing and Retail Sales. As this program progresses, other opportunities will be explored with a goal of having cooperative education as an option is all occupational/vocational programs.
SFCC	The college offers both internships and cooperative education courses that combine structured learning with work experience to help students prepare for the workplace. Students in all degree programs may enroll in leadership and co-op education courses with the permission of their faculty advisor and division head, subject to course availability.
SJC	Cooperative education is a planned program designed to enhance the students' learning experiences which are directly related to their educational or occupation goals. The student is evaluated jointly by San Juan College personnel and the employer. Enrollment in co-op classes must be authorized through the student's advisor or the appropriate division head and approved by the Co-op Office. Performance evaluation and assignment of a grade is done jointly by the employer and the Co-op Director.
AT-VI	Does not participate in the cooperative education program.
LVTI	The program was established via the U.S. Department of Energy, Office of Minority Economic Impact. The program is limited and has included opportunities for students in certain high technology energy-related careers.
TAVS	Because of the limited business and industrial base in Tucumcari and in Quay County, TAVS does not participate in the program.

Table 41. Cooperative Education -- Numbers of Students Involved

Institution	Applicants & Placements for 1987-88	Applicants & Placements for 1988-89	Five-year Student Projections	Openings & Placements Number by Type (Forms)	Openings & Placements Number by Types of Employers	Placements by Academic Major/Area 1987-88	Placements by Academic Major/Area 1988-1989	Five-year Goals & Follow-up Studies
NMSU-MAIN	979 Applicants 438 Students Enrolled in Work Phase	1,086 Applicants 460 Students Enrolled in Work Phase		For 1987-88 24 Parallel 414 Alternating For 1988-89 29 Parallel 431 Alternating	Business 55 Industry 30 Government 49	AGRICULTURE & NATURAL RESOURCES: 34 BUSINESS: 108 COMPUTER SCIENCE: 20 EDUCATION: 1 ENGINEERING: 212 HUMANITIES: 17 NATURAL SCIENCES: 10 SOCIAL & BEHAVIORAL SCIENCES: 4 TECHNOLOGIES: 12 GRADUATE SCHOOL: 20	AGRICULTURE & NATURAL RESOURCES: 37 BUSINESS: 120 COMPUTER SCIENCE: 22 EDUCATION: 0 ENGINEERING: 227 HUMANITIES: 16 NATURAL SCIENCES: 14 SOCIAL & BEHAVIORAL SCIENCES: 4 TECHNOLOGIES: 4 GRADUATE SCHOOL: 16	Expand employer participation 10% a year. No major comprehensive follow-up studies have been conducted.
UNM-MAIN	325 Applicants 175 Students Enrolled	373 Applicants 203 Students Enrolled	The average age for Co-op students will rise slighlty over the next five years. Certain disciplines will be highly sought by employer. (e.g. Computer Science or Chemical Engineering) Increase in the number of part-time students.		OPENINGS: Business 30 Industry 196 Government 126 Private/Non-profit 8 CO-OP EMPLOYERS: Engineering: 148 Business: 87 Arts/Sciences: 51	ENGINEERING: 125 ANDERSON SCHOOLS OF MANAGEMENT: 23 ARTS & SCIENCES: 27	ENGINEERING: 134 ANDERSON SCHOOLS OF MANAGEMENT: 38 ARTS & SCIENCES: 31	No formal follow-up studies. Future studies will focus on: 1. Conversion of Co-op students to regular full-time employment. 2. Cost effectiveness of the program both from the University's and the employer's standpoint.
WNMU	For 1986-87 43 Applicants 19 Students Enrolled	For 1987-88 65 Applicants 72 Students Enrolled			For 1986-87 Type of Co-op job sites: 7 For 1987-88 Type of Co-op job sites: 9			
NMHU	20 Student Participants	27 Student Participants				BUSINESS: 13 ELECTRONICS: 3 BIOLOGY 1 INDUSTRIAL ARTS 1 POLITICAL SCIENCE 1 MASS COMMUNICATION: 1	BUSINESS: 16 COMPUTER SCIENCE: 1 EDUCATION: 1 ELECTRONICS: 5 LEISURE STUDIES: 3 MASS COMMUNICATION: 1	Follow-up method used is written survey. Plans to conduct a telephone search/survey.
NM TECH		11 Applicants 6 Placements	Student profile will most likely be comprised of sophmores & juniors; more older students; more women & minority students; much the same GPA (3.02); and majors that parallel the job market.		CO-OP EMPLOYERS: Government 5 Industry 3		COMPUTER SCIENCE: 2 ENGINEERING: 4 NATURAL SCIENCES: 5	Follow-up studies through a survey of graduates (not Co-op students).

Table 41 (continued)

Institution	Applicants & Placements for 1987-88	Applicants & Placements for 1988-89	Five-year Student Projections	Openings & Placements Number by Type (Forms)	Openings & Placements Number by Types of Employers	Placements by Academic Major/Area 1987-88	Placements by Academic Major/Area 1988-1989	Five-year Goals & Follow-up Studies
SFCC	Approximately 100 interns/ Cooperative Education students for the past two years.		Expect 50 a year for the next five years. Average age of the students is expected to be 25-30.					
SAN JUAN COLLEGE	89 Students Enrolled	69 Students Enrolled				ACCOUNTING: 2 BUSINESS MGT. 13 BUSINESS ED.: 7 INDUSTRIAL TECHNOLOGY: 28 ELECTRONIC TECHNOLOGY: 4 INSTRUMENTATION: 4 ENGINEERING: 1 AUTO MECHANICS: 13 MACHINE SHOP: 1 WELDING: 1 DIESEL MECHANICS: 13 MUSIC: 1 NURSING: 1 UNCLASSIFIED: 14 COMMUNICATIONS: 1 ECONOMICS: 1 EDUCATION: 1 GEOLOGY: 1 MATHEMATICS: 1 SOCIOLOGY: 1	ACCOUNTING: 1 BUSINESS MGT. 9 BUSINESS ED.: 7 DATA MGT. 2 LAW ENFORCEMENT: 1 CORRECTIONAL ADMINISTRATION: 1 INDUSTRIAL TECHNOLOGY: 3 INSTRUMENTATION: 5 INDUSTRIAL INSTRUMENTATION: 3 AUTO MECHANICS: 5 MACHINE SHOP: 1 NURSING: 1 UNCLASSIFIED: 26 COMMUNICATIONS: 1 COMPUTER SCIENCE: 1 PSYCHOLOGY: 2 EDUCATION: 1 MATHEMATICS: 1 SOCIOLOGY: 1	No follow-up studies have been made to date. Follow-ups are made regularly of all students who receive a vocational degree or certificate.

Specific characterisitics of Cooperative Education students are on file with the Cooperative Education Network.

6. Enrollment Management Policies

Under the heading of "Enrollment Management Policies," institutions were asked to summarize their policies regarding student recruitment and admission, the profile of their student body, and any institutional goals to change that profile. They also were asked to describe any developmental education programs operated for those students inadequately prepared for college work and any support services available to help students succeed.

The responses were highly varied in both format and content, rendering only a limited basis for valid comparisons across institutions. UNM's plan provides a particularly good example of linking institutional goals, admission requirements, and measures of recent enrollment and retention in order to identify planning issues for consideration by the institution.

Student Recruitment and Admission. All New Mexico institutions concentrate their recruitment upon state residents. NMIMT has the most focused educational mission--providing advanced science and technology education--and the strongest ability to attract students from other states and nations. UNM, in a plan that contains a precise goal regarding its market share of high school students, characterizes itself as an urban university recruiting from the Albuquerque area, the state, and the Southwest, in that order. NMSU, ENMU, NMHU, and WNMU indicate they concentrate on state high schools for recruitment. Western and Eastern also seek students from adjacent portions of Arizona and Texas. The smallest of these institutions, WNMU and NMIMT, have clearly stated goals of increasing their enrollments.

The 14 two-year campuses largely confine their recruitment within the counties or school districts by which they are defined. Plans of the three UNM branches indicate their intentions to expand their recruitment across the Navajo Nation, in the case of Gallup, and across the state in the cases of Los Alamos and Valencia. Although the two-year institutions clearly are serving many older students (average student ages range from the mid-20s to the early 30s), several of the plans indicate intentions of continuing to concentrate recruitment upon high schools and increasing their enrollments of "traditional students."

Most of the institutional plans, particularly those of the four-year institutions, express goals for increasing enrollments of ethnic minority students and students underrepresented in particular programs. UNM, for example, sets a goal of increasing the portion of its enrollments from underrepresented groups by at least 2% of the total student body every year through the year 2000.

With the exceptions of UNM, NMSU, and NMIMT, all of the campuses view themselves as "open door," "open admission," or "opportunity" institutions, rejecting fewer than 1% of their applicants.

(In some cases, students may be denied admission to certain programs, but are granted admission to less restricted ones.) The three research universities require that students meet minimum standards in terms of high school performance and standardized test scores, but also admit some students as special cases. Currently, the numbers of students denied admission amount to about 12% of the actual enrollments at UNM and about 5% each at NMSU and NMIMT.

Enrollment Demographics. Demographic data in the plans are uneven and have limited utility from a statewide perspective. Characteristics of the student bodies are better obtained from CHE's Student File.

The institutions differ considerably in their intentions of altering the demography of their student bodies. For example, other than increasing minority representation, Eastern's plan indicates little need to alter other characteristics. Western, SJC, UNM-Los Alamos, UNM-Valencia, and NMSU-Alamogordo each indicate an intention to increase the proportion of full-time students. But Albuquerque T-VI expects its proportion of full-time students to decrease, based upon program shifts.

Student Retention and Programs to Improve Student Success. Most of the plans record some measure of their current rate of retaining students from one academic period to another. But the measures used differ greatly and sometimes reflect only certain categories of students or students in certain programs. Thus, the plans cannot be used to compare the efforts or outcomes of institutions in helping students to succeed. Nonetheless, reading across the plans is a useful way of sensing the diverse measures that can be used, the need to consider the varied intentions of students and the requirements of their programs, the costs of accurately measuring student retention, and the hazards of focusing on limited measures that may not reflect the complexity of students' decisions to continue a program or to take time out, transfer to another program, transfer to another institution, or stop their formal education entirely.

A. Measures of Student Retention. As one example of student retention measurement reported in an institutional plan, UNM regularly calculates the percentage of students who actually return to UNM from those who were eligible to return at the end of the prior semester. UNM reports that this index has increased in recent years to 86%, considering all undergraduate students. UNM's plan recognizes a need to focus retention efforts upon specific segments of the student body in order to understand enrollment dynamics. At UNM, specific yearly cohorts of students are tracked through their educational careers, with reports available for use in evaluating specific university programs.

NMSU also tracks yearly cohorts beginning in their freshmen year, but focuses on a sample of students, following them for an eight-year period. The resulting data allow NMSU to assess the long-term persistence rate of their students. For example, 43% of the students enrolling as freshmen in Fall 1981 had received a degree or were still enrolled eight years later. NMSU reports using these data to help gauge the impacts of recent changes in admission requirements and program changes.

Although most of the institutional plans report use of some student tracking system, with various illustrations, most also report that they are trying to expand their measures or to design new systems. The most important point about student retention to be gleaned from the 1990 institutional plans may be that the institutions are ready to improve their assessments of student retention.

> **POLICY IMPLICATION**. CHE has given high priority to encouraging institutional programs that assess educational success, and most New Mexico postsecondary institutions are developing assessment programs. Much of the discussion of assessment has concentrated upon measures of student knowledge, program completion, and success in locating jobs. The institutional plans suggest that there may be a more immediate need for CHE to help institutions select and implement more fundamental measures of student persistence, reflecting their students' ability and willingness to remain enrolled in and complete their postsecondary programs. The diversity of institutional programs for measuring student retention clearly indicates that there is sufficient expertise at some institutions to provide other institutions with help in designing measurement programs appropriate to their situations. Thus, the CHE might profitably act as facilitator for a statewide effort to improve measures of--and to increase-- student persistence.

B. Developmental Studies and Student Support Services. The plans of the three research universities reflect completion of the transfer of developmental education courses (those designed to provide remedial education to students not ready for college work in one or more academic areas) to neighboring two-year campuses. The remaining universities, i.e., WNMU, ENMU, and NMHU, continue to provide developmental coursework as part of their programs of open admissions. Although most of these courses do not yield credit toward a degree, some apparently do. The institutional plans of most of the two-year institutions clearly identify developmental education as a major facet of their missions.

In addition to formal remedial classes in reading, writing, mathematics, and occasionally other areas, many of the regional and two-year institutions offer workshops in study skills and have self-paced instructional programs that allow students to improve their knowledge of selected topics on individualized schedules.

All institutions operate offices that assist students in selecting appropriate programs and obtaining other services needed while they are enrolled. In varying detail, the institutional plans describe their student services, which most often include testing, counseling, and tutoring opportunities. At the largest institutions the services are more extensive, covering housing, student activities, and student health, for example.

Relevant to both state and institutional goals of improving access and performance of minority students and students with special needs, some of the institutional plans describe support services for special categories of students. UNM and NMSU both operate separate student services offices for Black, Hispanic, American Indian, and women students, and for students with physical handicaps. The UNM plan describes components of these services, in some cases relating the services to specific barriers to student success and welfare. NMSU's plan also notes its involvement in the federal Upward Bound program for low-income first-generation college students. Similar services exist at the smaller institutions, although they are likely to be concentrated upon particular ethnic groups prevalent in the geographic area served, and also to be quite limited in scope at the smallest campuses.

> **POLICY IMPLICATION**. Although exceptions can be found in specific plans, much of the material in the developmental studies and student support service sections of the institutional plans seems only loosely related to institutional goals. Perhaps institutions need to reevaluate the roles played by these services. In addition, it is unclear from the plans exactly how institutions have resolved the issue of credit versus no credit for remedial coursework. From a state perspective, there should be consistency across institutions in handling this issue, and further discussion may therefore be needed.

7. Faculty--Four-Year Institutions

Salary. The faculty issue most frequently discussed in institutional plans is salary. Institutions generally report they are falling behind their peers in their ability to attract and retain quality faculty, primarily because of uncompetitive salary and benefit packages.

Several factors serve to exacerbate this problem. The UNM plan states the pool of potential faculty is shrinking, in part because university teaching as a profession has decreased in relative popularity in recent years, and in part because of increasing rates of retirement reflective of the age mix of current faculty. In addition, most institutions are trying to improve the representation of minorities and women on their faculties, further limiting the pools of applicants within which institutions must compete.

WNMU, with a relatively older faculty and a faculty with a relatively low number of doctoral or other terminal degrees, has set goals of "attracting younger faculty from around the country" and increasing the number of doctoral-level faculty in each academic area. But NMIMT's plan points out that bringing in young faculty at relatively high salaries results in salary inequities between junior and senior faculty, generating still another salary problem which can work against overall faculty productivity.

Gender and Ethnicity. Another prominent issue is the need to improve the gender and ethnic balance of the faculty. Table 42, below, taken from the CHE Staff File for 1989-90 shows the gender and ethnic compositions of the faculties at New Mexico's four-year institutions. Both full-time and part-time faculty are included.

None of New Mexico's institutional faculties match the state's population for gender or ethnicity. Although most plans emphasize the need to attract new faculty from underrepresented groups, NMSU's plan also touches on a related strategy of retaining current women and minority faculty members, reporting analyses that demonstrate equitable treatment in promotion and tenure decisions.

Table 42. Gender and Ethnicity of Faculty, Four-Year Institutions

		Percent by Gender		Percent in Each Ethnic Group					
	Number of Faculty, 1989-90	Male	Female	Anglo	Hispanic	Native American	Black	Asian	Non-resident Alien
UNM	1,878	65.1%	34.9%	80.2%	8.2%	.8%	.6%	1.5%	8.7%
NMSU*	1,247	67.8%	32.2%	87.6%	6.7%	.6%	.8%	4.3%	-0-
NMIMT	225	81.8%	18.2%	77.3%	4.4%	1.3%	.4%	6.7%	9.8%
ENMU	282	59.6%	40.4%	88.7%	5.3%	.7%	2.5%	2.1%	.7%
NMHU	156	67.3%	32.7%	57.1%	39.7%	1.3%	-0-	1.9%	-0-
WNMU	112	61.6%	38.4%	81.3%	16.1%	-0-	-0-	.9%	1.8%
Total	3,900	66.5%	33.5%	81.4%	9.1%	.8%	.7%	2.5%	5.5%

* For NMSU, calculation of the percentages in ethnic groups is based upon 790 faculty members; the remaining faculty members were not classified by ethnicity.

Faculty Efforts: Instructional Workloads. Institution plans clearly state the traditional multiple roles expected of faculty: teaching, research or other scholarly activity, and service to the institution and/or community. State policy makers most often are interested in the extent to which instruction is equitably borne by all faculty members, senior as well as junior, in lower division as well as upper division and graduate courses. UNM lists a number of measures used to track faculty instructional efforts. ENMU displays data showing that both the student contact and credit hours produced by ENMU faculty members are higher than most other four-year institutions; but it notes that it has no systematic method of tracking faculty effort more generally.

Instructional loads vary with the mission of an institution. Institutions with significant research missions, for example, will have lower average instructional loads, while teaching loads at institutions with primarily instructional missions will be higher.

The information about faculty instructional loads contained in the institutional plans is insufficient for making inter-institutional comparisons or drawing statewide conclusions. However, the CHE Staff File and supplementary information gathered for the statewide "report card" do provide such information.

Faculty Development: Improving the Quality of Teaching and Scholarship. All of the 1990 institutional plans describe efforts underway or needed to support continuing professional development of faculty, and, to a lesser extent, other institutional staff. Based upon information provided in the plans, it is clear that student evaluations of teaching are used to some extent at every institution, as one source of data regarding teaching quality.

A. Research Institutions. UNM indicates a need to reduce teaching loads in order to increase time for research and other professional activities important in maintaining faculty quality. UNM says the loads are high in comparison to its peer institutions. UNM also notes a need for increased financial support for sabbatical leaves, seed money for research, and benefit programs that would enhance faculty activity, such as more dependent care and an improved retirement program that would allow interested faculty to continue partial duties rather than fully retiring. NMSU describes its current program of providing mini-grants for scholarly efforts and encouraging sabbatical leaves, involvement in professional associations, consulting, and ownership of intellectual material as ways of maintaining staff quality. NMIMT points out its encouragement of attendance at professional meetings or at local supervisory staff development programs, but notes that such development activities are limited by lack of funding.

B. Regional Institutions. Highlands, Eastern, and Western describe systems for evaluating the quality of faculty effort. At NMHU, evaluations are related to an annually updated professional development plan for each faculty member. WNMU also notes use of a management-by-objectives system of faculty evaluation, using self-appraisals, student appraisals, and supervisor appraisals. ENMU uses evaluations by students, peer faculty members, and administrators as part of its faculty development program.

NMHU and WNMU also see sabbatical leaves as a major opportunity for professional development, supplemented by travel and other professional activities. ENMU does not have a sabbatical program, but relies upon internal workshops and research grants to stimulate faculty development. At the three regional institutions, there seems to be less reliance upon research and other scholarly activity to prompt faculty renewal, and more reliance upon student and peer evaluations.

POLICY IMPLICATIONS

Underrepresented Groups. Data available from the CHE Staff File, plus the formal recognition in institutional plans, underscore the need for continuing efforts to increase numbers of women and ethnic minorities on postsecondary faculties (and on the non-teaching staffs as well). The major short-term solution identified in the plans is increased funding to improve the institutions' abilities to compete for women and minority candidates. Although this issue has been discussed for at least a decade, there is no statewide long-term plan for balancing representation, either in the form of a multi-year estimate of the cost of competing for the current supply, or a long-term effort to increase the supply of women and minorities educated for and interested in postsecondary positions. The new minority doctoral assistance program is a pilot effort, and evaluation of its impact cannot be undertaken for several years.

Faculty Effort and Professional Development. Although some of the institutional plans indicate activities underway or being planned to improve professional development options for faculty and staff, involvement in professional development activities has traditionally been left to the discretion of individual faculty members. Evaluation of teaching, scholarly activity, continuing education, and other professional activities is most intensively encouraged while faculty members are seeking promotion or tenure. But it is not unusual to hear allegations from people outside of academe that faculty work loads decrease considerably for senior faculty and that continuing professional development is even more needed for them than for junior faculty. Available statewide data on work loads and the plans of individual institutions could be used to stimulate debate on this issue. Potential advantages would lie in improving public understanding of faculty responsibilities, applying pressure on individual faculty or institutions that may have poorer records in this area, and identifying appropriate ways to support continuous professional development.

8. Faculty--Two-Year Institutions

Salary. Like their four-year counterparts, the two-year post-secondary institutions consistently indicated that lack of competitive salary scales is a major deterrent toward assuring faculty quality and recruitment of underrepresented faculty.

An opinion shared by many institutions, and stated very clearly by NMSU-Carlsbad, is that their low salary scale does not allow them to attract qualified minorities, nor to compete nationally or with statewide four-year institutions for quality faculty. Thus, they are forced to use more part-time faculty. UNM-Los Alamos cautions that their salaries are not comparable to those for other jobs in their service area. UNM-Los Alamos currently uses 100% part-time faculty. Low salaries have also forced NMSU-Grants to use more part-time faculty whose salaries have been kept deliberately low in order to afford increases for full-time faculty. NMSU-Dona Ana, is concerned that its faculty salary schedule is lower than that of its public school counterparts, forcing them to change from 12-month to 9-month contracts as one way to compensate for the lower salary. UNM-Gallup admits it is often forced to accept the third or fourth choice of faculty due to the low salary schedule. LVTI is very concerned that low salaries are causing faculty "burnout" and will force several faculty members to retire within the next five years. Many institutions are concerned that their salaries are not at parity with statewide comparison groups, much less peer groups on a national basis.

Gender and Ethnicity. Another prevalent faculty issue noted in two-year institutional plans is the need to improve the gender and ethnic balance of the faculty. Table 43, page 94, taken from the CHE Staff File for 1989-90, shows the gender and ethnic compositions of the faculties at New Mexico's two-year institutions. Both full-time and part-time faculty are included.

Only one New Mexico two-year institutional faculty (NNMCC) matches the state's representation for ethnicity, and only one (ENMU-Roswell) matches the state's gender population. However, several institutions are very close to matching the state gender population. Statewide, the average female representation on two-year faculties is 43%. The average ethnic representation on two-year faculties is 18%; Hispanics constitute 13%, Native Americans 2.7%, Blacks 0.7%, and others (Asians, aliens) 1.1%. State population statistics show that the female population is 50.7%, and ethnic minorities make up 51.4% of the state's populace, broken down as Hispanic 38.8%, Native American 9%, and other 2.7% (UNM Bureau of Business and Economic Research 1990 projections).

Table 43. Two-Year Postsecondary Faculty Profile Part-time/Full-time, Ethnicity, and Gender by Institution

Instit.	No. of Faculty 89-90	% Full-time	% Part-time	Anglo	Hispanic	Nat-Am	Black	Other	% Anglo	% Minority	% Male	% Female
UNMG	135	22.2	77.8	109	9	12	1	4	81	19	59	41
UNM LoAl	103	0	100	100	3	0	0	0	97	3	66	34
UNMV	96	13.5	86.5	70	23	1	1	1	73	27	52	48
NMSU Alam	114	24.6	75.4	96	6	2	2	7	84	16	54	46
NMSU Carl	64	32.8	67.2	59	3	0	0	2	92	8	51	49
NMSU Gran	75	16.0	84.0	64	7	1	2	0	85	15	61	39
NMSU DoAn	150	25.3	74.7	104	38	3	4	0	69	31	57	43
ENMU Clov	144	18.8	81.2	133	9	1	1	0	92	8	55	45
ENMU Rosw	173	21.4	78.6	154	17	0	1	1	89	11	49	51
SJC	251	25.5	74.5	239	4	6	0	0	95	5	62	38
SFCC	251	3.2	96.8	203	47	0	1	0	81	19	56	44
NMJC	106	50.0	50.0	82	2	17	0	3	77	23	53	47
NNM CC	145	25.9	74.1	69	67	6	0	2	48	52	59	41
TOTL	1807	20.2	79.8	1482	235	49	13	20	82	18	57	43

Instructional Workloads. Two-year institution faculty roles in the majority of cases are defined as instruction, service to institution and community, and in some instances professional development. The role of research and other scholarly activity is addressed only by the two-year branch colleges.

The majority of two-year institutions reported a full-time teaching load for faculty is 15 hours a week, with approximately 5-10 hours a week for office hours. SFCC reported a teaching load of 15-19 hours, and NMSU-Grants requires faculty to work 35 hours a week on campus. In general, institutions break down faculty effort as 85% instruction, 13% service, and 2% professional development.

Faculty Development: Improving the Quality of Teaching and Scholarship. There are a variety of professional development activities at two-year institutions, the most common being the Individual Professional Development Plan. This instrument is used to plan activities in which faculty indicate how they will follow up on in-service topics. Supervisor and student evaluations are sometimes used in this process as well. Some institutions incorporate merit pay with the use of the Professional Development Plan.

A variety of in-service programs, workshops, faculty forums and retreats, and staff development days are used by institutions to augment professional development for faculty. SFCC conducts a thorough needs assessment before planning the in-service schedule, which includes the themes articulated by the needs assessment. NMMI provides a substantial budget to the faculty senate for professional development, and it is used by 70% of the faculty. LVTI furnishes competitive grants to faculty for their development. A majority of institutions also furnish travel and registration fees to attend selected conferences and in-service training.

Among two-year institutions only the branches use sabbaticals and/or a tenure system for purposes of professional development. Tuition waivers are used extensively to encourage faculty to seek terminal degrees. An average of 16% of faculty have a Ph.D. at the two-year institutions (based on statistics reported).

POLICY IMPLICATIONS

Salary. A universal recommendation made by two-year post-secondary institutions is that they become competitive in terms of national and four-year faculty salary levels. Salaries should be raised to market level to attract and retain quality faculty and staff, indicates UNM-Valencia, by adjusting the two-year funding formula. NMJC recommends a step pay plan to remain competitive with other peer institutions.

There is a large disparity in the use of part-time faculty at two-year institutions, ranging from 100% of the total faculty down to 50%. Budget considerations often dictate the number of part-time positions an institution must use. The national ratio of full-time to part-time faculty in community colleges is 2:1. The availability of full-time faculty who can attend to issues of quality instructional delivery and service is of concern when the percentage of full-time faculty is low.

Underrepresented Groups. The low percentage of ethnic representation on two-year faculty (18%, as compared to 51.4% of the state population) is an issue which most institutions addressed in their five-year plans. Affirmative action goals and more aggressive recruitment of minority faculty are steps already being taken by several institutions. Low salary scales, mentioned in other sections of their plans, further exacerbate the situation. Although this issue has been discussed for at least a decade, there is no statewide plan for balancing representation on faculties (or staffs), either in the form of a multi-year estimate of the cost of competing for the current supply or a long-term plan for increasing the supply of women and minorities educated for and interested in postsecondary positions.

Faculty Effort and Professional Development. Faculty effort is almost uniform statewide for full-time faculty in two-year institutions. Part-time faculty, however, are sometimes assigned the equivalent of a full-time teaching assignment, but at part-time compensation levels.

Although some of the institutional plans indicate activities underway or being planned to improve professional development options for faculty and staff, involvement in professional development activities has traditionally been left to the discretion of individual faculty members. An issue which is raised more prominently regarding faculty at all levels (K-16), is their skills at delivering interactive teaching that can elicit higher order thinking skills applicable to all aspects of the curriculum and employment settings (Workforce 2000, 1989; Project 2061, 1990). The ability of New Mexico postsecondary institutions to resolve this issue will be a measure of the quality of their instructional delivery, and their contribution of effective employees to the state's workforce.

9. Salary Increases

Table 24, page 51, provides a summary of average faculty salary increases for fiscal years 1989, 1990, and 1991.

10. Capital Resources

Section X of the Institutional Planning Guidelines for 1989-90 asked the institutions to provide information on current space use and bonding capacity, projected needs for facilities renovation, construction, and maintenance, and policies or goals for information systems and resource coordination. The responses were so varied in format and content that they do not lend themselves to comparisons between institutions.

This year, institutions were also required to submit the traditional five-year Facility Master Plans, as required by CHE Rule 430. As a result, many institutions omitted responses to questions in the Planning Guidelines or simply incorporated their Facility Master Plans by reference. Other institutions obtained a working draft of next year's Section X, which has been revised to consolidate the requirements for facility plans and institutional plans, and then submitted a Section X according to the draft.

In all, 19 institutions responded to Section X of the 1989-90 Planning Guidelines. Of these, one responded only to the new draft of Section X, two responded to both the old and new Section X, two responded to an early draft of the new Section X, and eight submitted new Facility Master Plans. Six other institutions had 1989 Facility Master Plans, still current, on file with the Commission.

Next year, when the new Section X is incorporated in the Institutional Planning Guidelines, institutional responses should be consistent and more useful. A brief analysis of this year's data, by section, is as follows:

A. Space Usage. Nine institutions quantified their space use as a percentage; however, their computing methods were not presented. Based on discussions with institutional representatives, most of the percentages reflect room usage rather than percent occupancy of stations. That is, if a room was occupied for a given time, it was rated 100% for that hour even if, for example, only 5 of 20 stations were occupied.

Uniform, reliable data on utilization will be available in January 1991 when the renovated CHE Space File begins producing reports. In addition, the revised Section X asks each institution to discuss the relationship between its mission and the pattern of utilization. This discussion will be used to temper the utilization percentages so that institutions with heavy morning and evening use, typical of vocational enrollments at two-year schools, will not be penalized for low afternoon utilization rates.

B. Renovation and New Construction. All institutions presented lists of anticipated projects, either in their institutional plans or in their Facility Master Plans.

C. Facilities Maintenance. Most institutions responded to this section with a general discussion, but did not list specific projects or total funds needed. Five institutions, all of them relatively new, said Building Renewal and Replacement funds were adequate for their maintenance needs. Another seven institutions did not respond to this question, although they had included maintenance projects under Section B.

D. Equipment. Most institutions are relying on the proposed enhancement to the funding formula to meet their needs for equipment replacement and renewal. The general response was that the increased funding would at least help meet their needs. Institutions also include replacement or new equipment in the amounts requested for construction or renovation projects. Only one institution provided a list of equipment needs, and only four others provided a total amount needed.

E. Bond Issues. Most institutions responded to this question in a general way, mentioning the last time they issued bonds and the amounts of their debt service payments. A few provided debt service schedules and a clear statement of unused bonding capacity. Again, the responses are inconsistent and do not allow the development of a matrix for analysis.

F. Libraries and Computer Services. All but one institution answered this question, although several responses were scant. Most institutions listed and briefly explained their automated library services and on-line databases, often neglecting to mention their administrative or academic computing systems. It may be necessary to separate the library question so it does not dominate responses to this section.

G. Resource Coordination. Responses to this question were often included in the discussion of Section F, although some institutions discussed instructional television, cooperative agreements with other institutions, and consortia activities.

11. Resource Planning

The institutional planning guidelines for 1989-90 asked the institutions to describe their "anticipated needs over the next five years in funding, equipment, staffing, or other areas and how these needs may be met through cost efficiencies with public and non-public support."

The plans tended to be both brief and general in content, perhaps reflecting the lack of experience and difficulty faced by public institutions in anticipating the availability of financial resources. The responses can be loosely grouped into these three types:

A. Nine institutions provided five-year projections of revenue and expenditure requirements, usually accompanied by narrative summaries. In most cases, these projections included assumptions about enrollment growth and inflation that were applied to the current expenditure base. The most detailed projections were included in the UNM plan which built in additional assumptions regarding changes in state support for activities such as off-campus instruction, student services, etc. SJC's plan was also strong in this area.

B. Nine institutions submitted a narrative description of their revenue sources and expenditures, sometimes accompanied by general statements of anticipated needs. ENMU's response included an analysis of historical revenue and expenditure trends with an emphasis on the impact of state funding formulas on the institution.

C. Four of the institutions did not respond, with two of those, including NMSU, indicating this topic would be addressed in their 1990-91 plans.

The general conclusion to be drawn from the responses is that the current capabilities of state postsecondary institutions in the area of projecting financial requirements are relatively unsophisticated. (This situation appears to be common in public higher education throughout the country.) It is possible that the formula-based funding system in New Mexico, which looks largely to historical data, rather than projections of future needs, as the driving mechanism in the allocation of resources, may contribute to this situation.

> **POLICY IMPLICATION**. In the face of increasing financial pressures on all public-sector activities, the field of financial planning and management appears to offer opportunities to institutions for greater responsiveness and efficiency in meeting their goals. Institutional planning efforts should devote more attention to this area.

I. APPENDICES

Appendix I. Eisenhower Mathematics and Science Grants Program

Grants are made under this program on a competitive basis to qualified public and private institutions of higher education for the purpose of improving or expanding precollege instruction in mathematics or science. The New Mexico Commission on Higher Education placed $202,496 in competition for 1989-1990. The following post-secondary institutions submitted proposals and were funded in the amounts indicated:

Grantee	PROJECT TILE	# OF TEACHER PARTICIPANTS	# OF STUDENTS IMPACTED	GRANT AMOUNT	OTHER PROJECT INCOME
NMSU Educational Research Center	Enhancing the Teaching of Middle School Earth Sci.	10	1200	$21,217	In-Kind
NMIMT Department of Biology	Master of Science Teaching Program	54	7200	$43,747	In-Kind
ENMU Dept. of Math. Sciences	Math.-Science In-Service Hands-On Workshop	104	3120	$44,186	In-Kind
NMSU Science & Math Ed. Ctr.	Preparing Sci. Equip. & Math Manipulatives for Rural Elem. Teachers	41	1200	$50,861	In-Kind
NMHU Science Ed. Resource Center	Training Opportunities in Sci., Math, & Tech. for Minority Students & Teachers	43	1204	$38,348	In-Kind
NMSU Colleges of Engineering/Ed.	Inservice Training for Jr. High & Middle School Teachers			Not Funded ($38,394 requested)	
NMSU Depts. C&I, Ed. Manage. & Dev.	Techniques for Ed. of Math Anxiety & Crit. Thinking			Not Funded ($83,239 requested)	
NMSU College of Education	The Enhancing of the Teaching of Science in Middle Schools			Not Funded ($61,582 requested)	

A. NMSU: A joint effort of New Mexico State University and Las Cruces public schools to improve the teaching of geology in the middle schools of Las Cruces and to develop a process for science staff development. Activites included: field trips with middle school teachers to collect artifacts, take pictures, and make video tapes; workshops to make classroom lessons integrating materials from field trips;classroom demonstrations; and a summer revision workshop to re-evaluate the process.

* B. NMIMT: The Master of Science Teaching program is designed to offer intense, two-week courses in the areas of science, mathematics, and engineering, to in-service teachers. The courses carry two graduate science teaching credits each, which may be applied to the Master of Science teaching degree offered by New Mexico Tech. In addition, a third credit may be earned for each course by carryiong out a directed study in conjunction with the course. The directed study emphasizes curricular applications of material covered in the course.

C. ENMU: Mathematics-Science Hands-On In-Service Workshops were taken to school districts in the eastern New Mexico area to provide teachers an opportunity to learn new topics and teaching methods tailored to the specific needs of the district. Hands-on lessons were written up, arranged into packets and presented to each participant in a workshop. Such packets contain a lesson, some activity sheets, a bibliography of resources, and a set of paper hands-on manipulatives which can be run off or laminated.

D. NMSU: A week-long inservice trained school personnel in the following activities: develop science equipment for a K-8 curriculum; develop mathematics manipulatives for a k-8 curriculum; and produce a workshop manual and student materials for the aforementioned. On-site evaluations were conducted at each participating school district.

E. NMHU: Teacher retraining at the elementary and secondary levels to reinforce teacher's skills in math, science and computing took place through a series of mini-courses in the following areas: geography & mapping skills; methods of scientific measurement; graphing techniques & interpretation of data; coordinating representation of space, position and motion; electromagnetic spectrum; simple machines; genetics & reproduction; and chemical bonding in organic & inorganic compounds. Microcomputers were used to support instruction, and a consultant integrated critical thinking skills into the course content.

* An exemplary project of high quality.

Appendix II. Proprietary School Initiatives

Two state statutes make CHE responsible for registering private proprietary schools operating within New Mexico or soliciting students within the state. Thus far in 1990-91, 126 such schools were registered, a number that will increase slightly as additional schools register during the year. For 73% of these schools, state oversight ends with registration because state law currently exempts accredited schools from any further oversight. Considering additional exemptions permitted by law, less than 20% of the proprietary schools operating in the state are required to provide basic information about their programs, enrollments, and operations, needed to advise and protect consumers.

During the 1989-90 year, two accredited institutions abruptly closed in the middle of academic terms, leaving students with uncompleted programs and lost financial investments. The Commission staff, assisted by the NM Educational Assistance Foundation, retrieved and protected the academic and financial records from Muir Technical College and The Construction School. Some students have been assisted in transferring to programs at other institutions, but many have lost money and the state is unable to help them retrieve their losses.

Because New Mexico has one of the least regulated environments for proprietary schools, every week CHE receives inquiries from school owners in other states interested in moving their operations here. Although most proprietary schools are responsible institutions with quality programs, the state could quickly be populated by diploma mills and short-term schools seeking quick profits through inflated charges based upon federal financial aid. For these reasons, CHE is developing statutory amendments for presentation to the 1991 Legislature that seek greater ability to deny operating approval to schools with unacceptable programs or business practices, and to assist students who are damaged if a school closes. CHE is cooperating with organizations representing independent and proprietary institutions already present in the state to ensure that these amendments are effective but fair.